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RESEARCH, DEVELOPMENT & ENGINEERING CENTER

U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE COMMAND

ERDEC-SP-025

**AFTER ACTION REPORT FOR THE SERVICE RESPONSE FORCE
CONDUCTING OPERATION SAFE REMOVAL,
5 JANUARY - 3 FEBRUARY 1993**

DOCUMENTS AND REPORTS

VOLUME I: OFFICE OF THE COMMANDER



Jeffery K. Smart

CORPORATE INFORMATION OFFICE

October 1994

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DTIC QUALITY INSPECTOR



Aberdeen Proving Ground, MD 21010-5423

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13. ABSTRACT (Maximum 200 words) Operation Safe Removal was the designation for an emergency Service Response Force (SRF) mission at Spring Valley, Washington, DC. The SRF work was designated Phase I of the clean-up of the former American University Experiment Station site, designated a Formerly Used Defense Site by the U.S. Army Corps of Engineers. During Phase I, the SRF safely recovered and removed 144 WWI era munitions, some of which contained toxic chemical agents, from a residential construction site. This operation was accomplished with the complete approval of environmental officials, local and state officials, DoD officials, and local residents.		
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**When this study was conducted, the U.S. Army Chemical and Biological Defense Command was known as the U.S. Army Chemical and Biological Defense Agency.

PREFACE

This work was started in January 1993 and completed in February 1993.

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Acknowledgments

The author wishes to acknowledge each Service Response Force action officer who took the time to collect their documents and write their after action reports.

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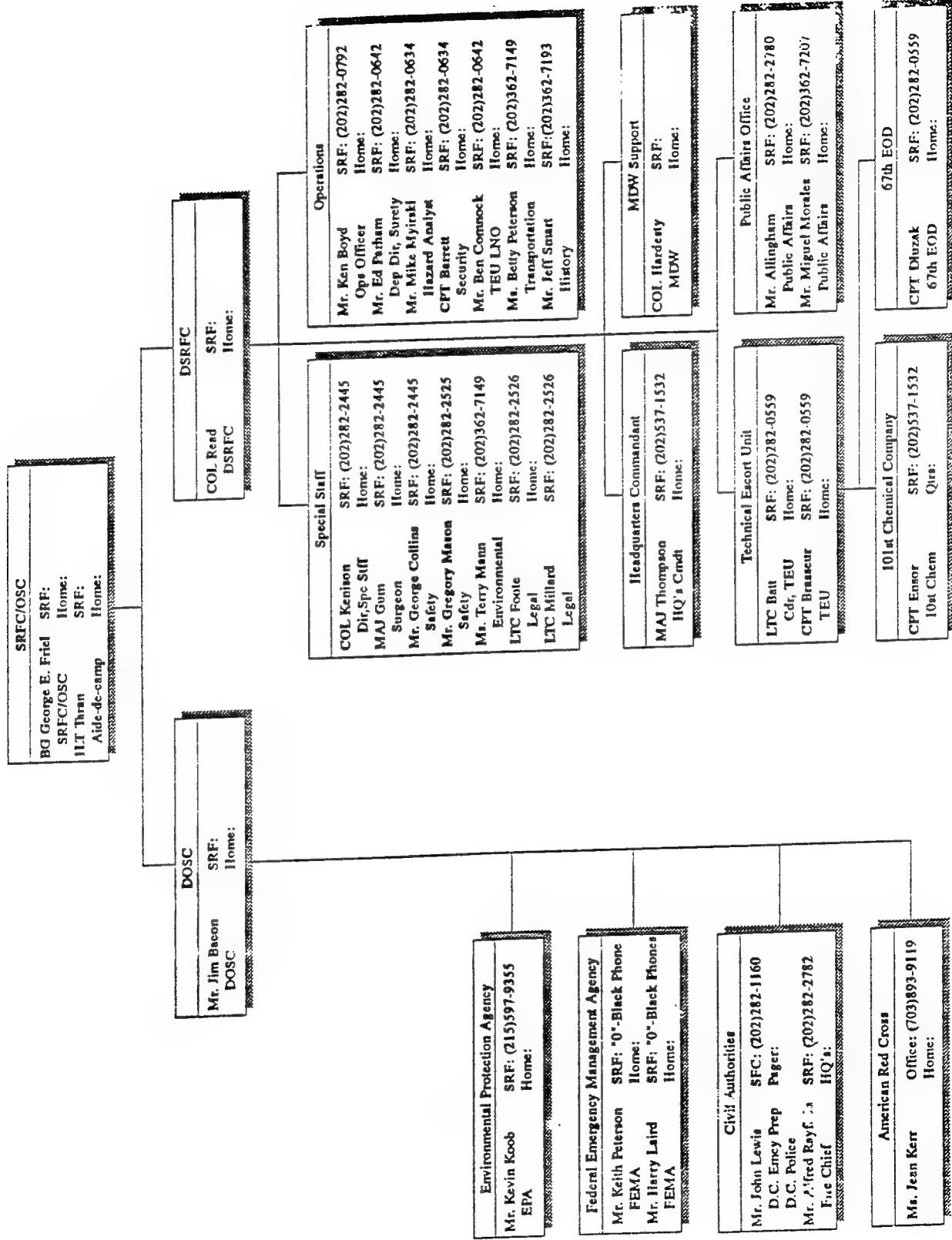
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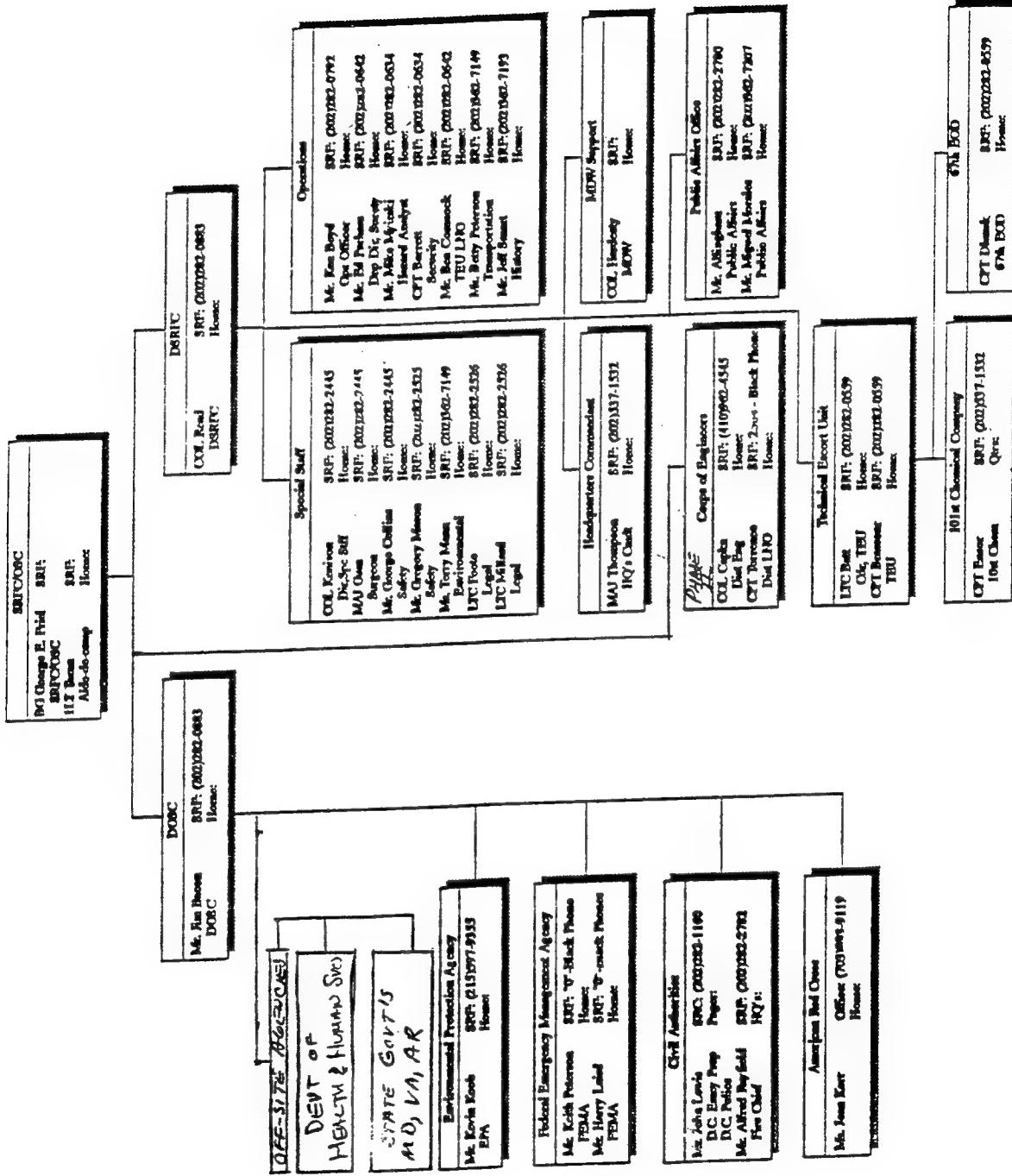
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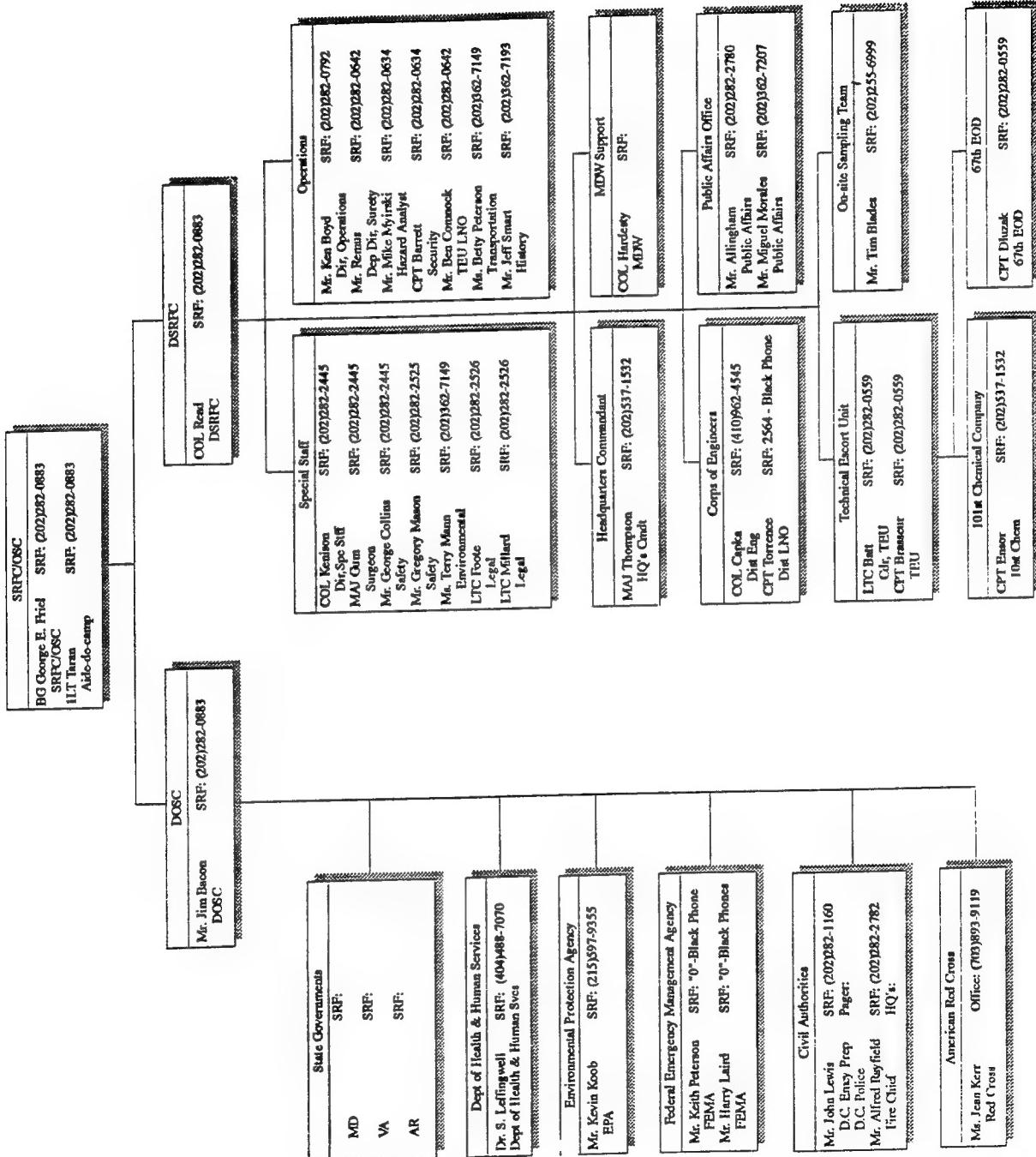
ORGANIZATION CHARTS



15 Jan 93



16-143



SITUATION REPORTS

SUBJECT: SITREP 8 Jan 93 - Spring Valley SRF Commander

1. GENERAL. This report is the final SITREP for 8 Jan 93.

2. OPERATIONS.

a. Summary. Operations continued throughout the day under control of TEU. Work focused on reduction of excavated material adjacent to original pit. New finds were:

2 ea 75mm liquid-filled w/o fuze
1 ea 75mm solid-filled w/o fuze

Total items collected to date: 50 weather and lack of ground clearance/disposition instruction precluded removal of any material from site. Solid-filled items and liquid-filled items were packaged and placed in separate CONEX containers for security/storage until movement. Scrap material was boxed and sealed on site. Work areas, both pit and excavated material were covered in plastic and sealed for the weekend period.

An SRF Operations Center was established on site. Effective 082800 Jan 93 the following phone numbers are in effect:

SRF CDR	(202) 282-0883
SRF OPNS CTR	(202) 282-0634/0642
SRF PAO	(202) 282-2773/2780
FAX	(202) 282-0728

The site has been secured for the weekend under control of civil authorities.

b. Future Operations. Clearing of excavated material will commence 110900 Jan 93. Preparations will continue for removal of identified material from site as soon as conditions permit. Upon removal of excavated material, efforts will focus on determining size of munitions site through the use of ground sensing radar, magnetometers, etc. Once the size of the site is defined, efforts will continue to remove all hazardous material.

3. PUBLIC AFFAIRS. PA coordination on sited working well. SRF PAO established in operations center with coordination directly to HQDA. Press coverage was present at 8 Jan 93 meeting with residents.

4. HOMEOWNERS/RESIDENTS. City officials and SRF Commander met with local residents and explained safety measures, current site status and rationale for daily evacuation. Although most residents understand the situation and are supportive, they expressed strong concerns about final resolution of the problem, timelines for mission completion and several expressed a requirement for a DOD/Federal official to provide "property safety certification." Announced daily meetings for homeowners beginning 11 Jan 93 and establishment of a "homeowners hotline" effective Monday morning.

5. COMMANDER'S ASSESSMENT.

a. Situation under positive control. Residents allowed to return to homes 82100 Jan 93 for weekend.

b. Need support with on-site official to address resident questions and concern. Major issues will be provided in 9 Jan 93 SITREP.

c. DC agencies remain responsive. The current evacuation policy initially established by the city does not support quick resolution of current missions. Will develop alternatives for discussion with city officials over the weekend. I am concerned some residents may not evacuate safety zone 11 Jan 93 under current policy.

GEORGE E. FRIEL
Brigadier General, U.S. Army
On-Site Coordinator

SRF COMMANDER'S SITREP 101600 Jan 93

1. GENERAL. Additional TEU teams arrived to support operations. ASA(ILE) visited site for orientation brief 101030 Jan 93. SRF Staff and Operations Center established on site 101800 Jan 93.

2. OPERATIONS.

a. 24-hour summary. None. Site secured until 110900 Jan 93.

b. Status of recovered munition:

liquid-filled	19
solid-filled	31
Total	50

c. Status of excavation site. Minor water accumulated in pit due to weather. No activity. Operations resume 11 Jan 93.

d. Site Safety/Security. Current evacuation plans call for evacuation in hazard zone from 0900-2100 during operations. Evacuation plans under review with city officials.

e. Future operations. Site operations resume 110900 Jan 93. Primary focus will be to complete packaging of extracted materials for transport and continued removal of spoil dirt adjacent to the excavated pit.

f. Phase II Operations. Transition planning will be initiated with COE representatives for definition of Phase I/Phase II - transition and concept planning initiated for follow-on work.

3. PUBLIC AFFAIRS. No PA releases within the last 24 hours. Joint Community Information Center to be activated adjacent to site 11 Jan 93.

4. HOMEOWNERS/RESIDENTS. Resident telephone "hot line" to be active 11 Jan 93. Daily briefs for homeowners/residents to commence 111800 Jan 93.

5. CIVIL AUTHORITIES. No change.

6. ISSUES/REQUIREMENTS.

a. Forces need to be identified for emergency medical, security, and decontamination support to be on a stand-by status once movement operations commence.

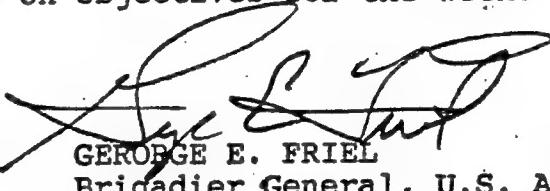
b. Request specific units be identified and placed on stand-by to respond to the site if a chemical accident should occur.

(1) Augment DC police and medical forces.

(2) Perform site decontamination.

(3) Coordinate with SRF Operations for training and positioning.

7. COMMANDER'S ASSESSMENT: I moved the center of gravity from Edgewood to the On-Site Operations Center, today. I have adequate forces on site to manage current operations. Will assemble the team tomorrow to analyze the site and start Phase II planning. Staff will begin to identify the standards and the certification procedures for closing the site by Friday. Will brief CSA 110700 Jan 93 on objectives for the week.



GEORGE E. FRIEL
Brigadier General, U.S. Army
On-Site Coordinator

SRF Commander's SITREP 112100 Jan 93

1. GENERAL. SRF Commander briefed senior Army leadership on situation and planned activities. Region III EPA Director (SES 3 equivalent) visited site. Coordination between agencies going well. Cdr, D Co, 3rd Infantry, the designated emergency security response force, was oriented and briefed on duties today.

2. OPERATIONS.

a. General. Resumed operations at 110900 Jan 93 as planned after preparing the site and resident evacuation was completed. SRF and District civil authorities in place as required. Lab analysis of previous identified suspect items confirmed presence of trace of decomposition compounds of Lewisite and laboratory quality Adamsite. SRF Commander requested HQDA designate a Deputy On-Scene Coordinator as required by National Contingency Plan.

b. Excavation site activities. TEU resumed recovery of munitions in excavated soil. Five additional munitions: 1 Livens projector, 1 4.7" projectile, and 3 75 mm projectiles all with solid fill were removed, analyzed and packaged safely.

c. Status of munitions.

Liquid filled	29	15	19
Solid filled	26	35	
Total	55	54	

d. Site Safety/Security.

(1) City resident evacuated to a safe zone out to 300 meter radius from site for the period 0900-2100.

(2) Evacuation of same zone plus closing of portion of Dalecarlia Parkway (a major thoroughfare) was agreed to by city officials for implementation 120900 Jan 93.

(3) Additional air monitoring equipment arrived to enhance safety to TEU personnel on site.

e. Next 24 hours. Efforts will continue to reduce two piles of excavated soil and begin work within the original pit area. All munitions extracted will be packaged in preparation for transport as soon as weather permits.

f. Phase II Operations.

(1) Transition coordination from Phase I to Phase II has commenced between SRF and Baltimore District, COE. Current issues include: identifying federal and other agencies required for Phase II support; coordination of COE concept of operations with current federal and local agencies.

(2) Coordination for an operations base for the Phase II Contractor is underway. An advanced planning and coordination team from the contractor, EOD Technology, Inc. is scheduled to arrive 13 Jan 93.

(3) The Engineering Housing Support Center (EHSC) at the Humphries Engineering Center, Fort Belvoir, Va. will provide topographic analysis support to assist in the identification of potential areas of concern.

3. PUBLIC AFFAIRS.

a. Established citizen hotline today in public affairs element for citizens to call in with questions and concerns. Fourteen calls received 11 Jan.

b. Responded to media queries/interviews/requests for photographs. Standup interview with SRFC/OSC conducted by channel 4 following citizens' meeting. When queried, SRF Commander confirmed presence of Lewisite and Adamsite in laboratory samples recovered from excavation.

4. HOMEOWNERS/RESIDENTS. Daily community meeting with homeowners at 1800 went well. Expect evacuation to go well tomorrow. Major concerns still center on Phase II plans.

5. CIVIL AUTHORITIES. No change.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Operations went as smooth as could be hoped today. Weather continues to impact operations, and I don't expect to fly tomorrow. Safety, both site and community, remains primary focus.



GEORGE E. FRIEL
Brigadier General, U.S. Army
On-Site Commander

1. GENERAL. Liaison between SRF and civil authorities continues to be well coordinated. There were no external agency briefings conducted today. Mr. Bacon, the designated Deputy On-Scene Coordinator, arrived on-site at 121410 Jan 93. FEMA portable SATCOM vans (4) arrived on-site at 121600 Jan 93. Advance party of the Decon Platoon, 101st Chem Co, arrived at Ft. Belvoir at 121930

2. OPERATIONS.

a. General. Operations resumed at 120955 Jan 93, but were ceased at 121010 Jan 93 because of incomplete evacuation of 300 M radius from pit. Because of the voluntary nature of the evacuation, city officials were unable to force compliance. After careful analysis, operations were resumed at 121400 using a modified exclusion radius of 150 M based upon a calculated downwind hazard for a single 4" Stokes mortar with CG fill. Plan was to terminate operations immediately should any larger-sized munitions be encountered.

b. Excavation site activities. Both piles of excavated soil have been cleared of UXO and scrap metal. Operations have now moved to the pit. Seven additional munitions: 4ea 75mm, 2ea stick grenades, and 1ea Livens projector (short variant) were recovered. Three grenades which were assessed on 6 Jan 93 to be liquid fill were reassessed later that day as scrap and have been erroneously counted as liquid filled. This was discovered today during repackaging for air transport.

c. Status of munitions (121900 Jan 93).

Liquid filled	19
Solid filled	39
Total	58

d. Site Safety/Security Representatives from MDW, Metropolitan Police and the homeowners association went door to door to explain safety considerations to residents that refused to evacuate. This initiative was quite successful, however, one refusal still resulted, thus impacting operations. The D.C. Office of Emergency Preparedness has been advised that any future non-compliance could force the need for emergency declaration by the Mayor. This course of action is not preferred because of negative community impact.

e. Next 24 hours. Contaminated dirt has been added as an additional grouping for which a transportation/disposition plan is being written. Operations will now be focused on render safe procedures, packaging, and on-site storage for munitions found in the pit. Work will continue to try to define the limits of the munitions cache as well as prepare the recovered munitions for transport. TEU personnel will begin warming suspect solid filled

munitions to reevaluate for Mustard.

f. Future operations.

(1) Transportation of liquid filled munitions to PBA can commence when the weather permits and the following time limitations at Andrews AFB:

NLT 131300 Jan 93
NLT 141300 Jan 93
15 Jan 93 - all day
NLT 161300 Jan 93

(2) Transportation of solid filled munitions to Fort A.P Hill via RW aircraft will commence, weather permitting, as soon as packaging is complete and A.P Hill receives emergency permit.

14 Jan 93 - all day
15 Jan 93 - all day

(3) Transportation of scrap metal by truck to an approved hazardous waste landfill in Alabama will commence as soon as the contractor receives approval from the receptor site. This approval could be received as soon as 15 Jan 93.

g. Phase II Operations

(1) Topographical and archeological teams are working to provide accurate location data to assist in the determination of the "scope" of the Phase I effort. This determination will impact the initiation of Phase II. Data and graphics are scheduled for submission to SRF Cdr by 131400 Jan 93.

(2) A staging area for the disaster response teams has been identified. The area is located behind Sibley Hospital and can be accessed through Baltimore District COE LNO.

(3) Transition issues include documenting existing site conditions before the initiation of Phase II, procurement of an on site COE operations office and a "survey" of surrounding communities included in the Phase II effort.

3. PUBLIC AFFAIRS. SRF staff responded to six media queries for information updates and requests for photographs. Issued two Information Updates regarding closing of Dalecarlia Parkway and water testing by the Army and EPA. SRF Cdr provided requested interviews to television channel 4,7, and 8.

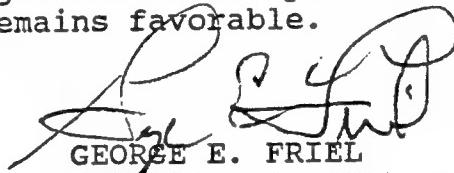
4. HOMEOWNERS/RESIDENTS. Citizen hotline working well. Concerns today centered on misunderstanding of evacuation plans. Additional concerns centered on Phase II operations. Daily community meeting included representatives from D.C. Office of

Emergency Preparedness to discuss evacuation plans and the need for cooperation. Also attending was City Councilman Nathaniel Nathanson. Spring Valley homeowners group officially formed. Co-chairs are former DoJ and DoD environmental law attorneys who live in evacuation zone.

5. CIVIL AUTHORITIES. No change

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Based upon the results of continuous and extensive use of the Real Time Monitoring System and the Depot Area Air Monitoring Systems, I assessed the area safe for our TEU folks. The topographic folks have begun their analysis and we have started the site survey with a magnetometer. Believe I will have an answer in the magnitude of the problem midafternoon. Public support remains favorable.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force
Commander

CF: AMCOC (AMCCB)
MDW EOC
Secret Service, Tech Security Div

1. GENERAL.

a. Main body of 101 Chem Co (-) closed on Ft Belvoir at 122330. CO received concept brief from TEU, and coordinated forward positioning of vehicles with Baltimore District COE LNO. A representative from the Ordnance Missile Munitions Center and School arrived on site to assist with the AAR and Lessons Learned pertaining to munition recovery. D Co, 3rd Inf briefed by TEU on their contingency security mission. SRF briefed site operations to Congressional delegation (Murtha, Dixon, Holmes-Norton and staff) at 131100. Included in this brief were two homeowners accompanied by Principal Deputy ASA (IL&E).

b. One additional liquid filled 75mm projectile has been added to the site inventory. This munition was recovered from a citizen who called the Maryland Department of the Environment Hotline stating that he had picked it up in the vicinity of the American University Chapel. EOD specialist bagged and transported the munition to this site.

2. OPERATIONS.

a. General. Site preparation commenced at 0730. Recovery operations resumed at 131025 after the site was evacuated to a 300M radius from the pit. Evacuation procedures went much smoother today. This level of evacuation will allow for full operations using the established MCE. Initial coordination was accomplished with the AMCCOM Flight Det to identify aircraft LZ for extraction operations.

b. Excavation site activities. Work focused on reevaluating and repacking liquid filled rounds into the appropriate single round container (SRC). No other intact munitions were recovered from the pit. Only scrap metal was removed.

c. Status of munitions.

Munitions recovered:

Liquid filled	20
Solid filled	<u>39</u>
Total	59

Munitions packaged in SRCs.

Levins projector	10
4.7" projectile	2
75mm projectile	6
Total	18

d. Site Safety/Security. There is a growing concern over

personnel fatigue. The SRF Surgeon will monitor TEU personnel in the morning and evening.

e. Next 24 hours. Weather permitting, two UH-1 aircraft plan to arrive at the site for removal operations to Andrews AFB (AAFB). A load aircraft with certified crew and technical escort specialists will transport the containers followed by a support aircraft with TEU personnel for emergency backup. The shipment will be transloaded to Army C-23 aircraft and flown to PBA utilizing an additional crew and four TEU specialists. The window for AAFB operations was changed to 141100-1400. TEU will continue to explore the pit, perform render safe procedures, catalogue, and preparation of the munitions for shipment.

f. Future operations. Criteria for termination of the emergency response phase have been developed and will be coordinated with Federal and local agencies.

g. Phase II operations. Phase II concept meetings were conducted between the Baltimore District COE, Miller Developing Corp and the EPA.

3. PUBLIC AFFAIRS. Responded to three media queries for information updates. Issued two community advisories: planned airlift of munitions and approval to use Defense Environmental Restoration Program funds for reasonable incidental expenses for evacuees. Issued one media advisory regarding a photo opportunity for tomorrow's planned airlift operation.

4. HOMEOWNERS/RESIDENTS. Received 30 citizen hotline calls from residents asking for updates on the operation. Of prime concern is whether Phase I work will be completed by Friday. The Baltimore District COE presented the Phase II concept to the homeowners at a public meeting hosted by the SRF Cdr.

5. CIVIL AUTHORITIES. Actions continue to be fully coordinated between the SRF staff and the D.C Office of Emergency Preparedness.

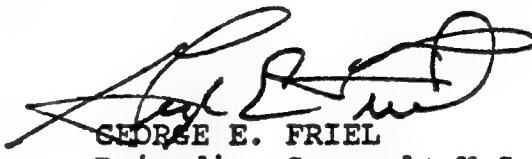
6. ISSUES/REQUIREMENTS.

(1) Need a sample of each liquid filled munition recovered to be drilled, sampled, analyzed and characterized. Options for this operation are being studied for coordination by the SRF staff.

(2) TEU is quickly depleting their supply of SRCs. Emergency fabrication of additional units at ERDEC has been authorized with anticipated delivery on 18 Jan.

7. COMMANDER'S ASSESSMENT. Today, I analyzed the data from the magnetometer sweeps ran last night and again this morning around the pit, and compared the results with the conclusions of the Defense Mapping Agency on the location and size of the pit. My

best guess is we are located on the edge of a former disposal pit approximately 10 feet in diameter at a depth of approximately ten to 12 feet. The TEU removed soil from the top of this area and found it hard to dig. Bottom line, as a minimum it will take six good work days to finish the pit. This analysis also indicates that other isolated munitions may be found in the vicinity of the excavation site. Operations are going well as possible. We have found nothing to change my confidence that the area is safe for our folks to work and for the residents to return home. I believe that the transition to Phase II got off to a positive start with the first briefing to the area residents tonight. Excellent cooperation with Federal and District agencies continues.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force
Commander

CF: CG, AMC
AMCOC (AMCCB)
MDW EOC
CBDA EOC
Secret Service, Tech Security Div

SRF Commander's SITREP 142100 Jan 93

1. GENERAL. Full commercial and outgoing DSN telephone communications established by FEMA. Direct dial incoming 1-800-331-1238 line to SRF Hq is in operation. On-site orientation brief provided to Directors of DAMO-OD and DAMO-SW.

2. OPERATIONS.

a. General. Site preparation commenced at 0730 with first entry monitoring. Extraction UH-1's arrived on station at 0801. 300M exclusion zone evacuation was confirmed by the D.C OEP at 0945. First loading operation commenced at 1010 and was completed at 1025. Andrews AFB (AAFB) clearance was received at 1019. First flight lifted at 1032 and landed at AAFB at 1050. UH-1's arrived back on station at 1140. Second loading operation commenced at 1147 and was completed at 1155. Second flight lifted at 1205 and arrived at AAFB at 1236. The lead helicopter arrived back on station at 1330 and will remain overnight. C-23 flight departed AAFB at 1310 and safely landed at Redstone Arsenal to remain overnight.

b. Excavation site activities. Pit recovery operations resumed at 1230. Seven additional munitions were recovered but remain unassessed as to contents: 2ea Levins Projector, 4ea 75mm projectiles, and 1 ea 4.7" projectile. TEU is starting to find debris from 1918 operations such as sign posts and barbed wire fencing.

c. Status of munitions.

(1) Munitions recovered:

Liquid filled	20
Solid filled	39
Unassessed	<u>7</u>
Total	66

(2) Liquid filled munitions shipped to PBA.

Levins projector	10
4.7" projectile	1
75mm projectile	<u>6</u>
Total	17

(3) Recovered munitions remaining on-site.

Liquid filled	3
Solid Filled	39
Unassessed	<u>7</u>
Total	49

d. Site Safety/Security. Coordination with the Metropolitan Police Department (MPD) was completed for several site security options for the weekend. Plan to augment MPD TCP's with unarmed military personnel during any extended period of site shut-down.

e. Next 24 hours. Recovery operations will continue in the pit. Recovered rounds will be catalogued, and confirmed liquid filled rounds will be prepared for shipment. Air operations are on hold until sufficient liquid rounds can be extracted to justify flight. TEU will continue to reevaluate the solid filled rounds using a heating and x-ray process to rule out a chemical fill. Those munitions assessed as non-chemical fill will be prepped for shipment to demolition range.

f. Future operations. Emergency fabrication of additional SRC's at CBDA is proceeding. Expect first delivery on 18 Jan 93. The MD Dept of Environment (MDE) has given tentative approval to air transport of three representative munitions to APG-EA for characterization of contents provided an emergency RCRA permit is approved. Pending final approval, this shipment will leave the site on 16 Jan 93. Recovery operations will continue until 152100 Jan 93. 160730-1500 Jan 93 will be devoted to clean up and security of the site. Priority of air shipments are liquid filled munitions to PBA; liquid filled munitions to APG-EA; solid filled munitions to Ft A.P Hill.

g. Phase II operations.

(1) Transition coordination continues. The transition plan was prepared and reviewed today by the SRF Cdr. The plan was developed with the input and coordination of multiple agencies.

(2) Additional topographic products are scheduled for delivery to the SRF Cdr tomorrow. These products are expected to further define the location and orientation of the current work site as well as other potential areas of concern.

(3) The Corps of Engineers Phase II on-site field office will be established on 151900 Jan 93. The office will house representatives from the Baltimore District, Huntsville Division, EOD Technologies and FEMA (for the duration of Phase I only).

3. PUBLIC AFFAIRS. SRF hosted reporters from channels 4, 7, 8, 9, DC Cable 16, WTOP and WMAL Radio and a freelance still photographer to view first helicopter airlift to AAFB. Cdr, TEU briefed reporters during and after loading operations. Responded to four media queries requesting information updates. Issued fact sheets on phosgene and adamsite, community advisory on how to handle found munitions and an information update on today's airlift.

4. HOMEOWNERS/RESIDENTS. Received 32 citizen hotline calls from residents asking for updates on the operation. Of prime concern is security during work break and length of time of operation. At tonight's community meeting, SRF Cdr briefed citizens on timetable of upcoming operations.

5. CIVIL AUTHORITIES. No change.

6. ISSUES/REQUIREMENTS. Confidence in current monitoring equipment is high--but have no back-up to the Real Time Analytical Platform (RTAP). Need back-up at Edgewood Saturday, 16 Jan to do preliminary calibration to ensure operational capability on Thursday.

7. COMMANDER'S ASSESSMENT. Today we began to uncover the pit from tip down, and I believe we have found the residue from the closure of a test area. If the weather holds, expect good progress tomorrow. Believe the break for the weekend and our success on the air moves lifted the morale of the whole task force. The area is being extensively air monitored and all tests are below worker safety levels. Will brief my closure criteria at the CSA update tomorrow.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force
Commander

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MDW EOC
CBDA EOC
Secret Service, Tech Security Div

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP, 152100 Jan 93

1. GENERAL. SRF Cdr briefed the CSA on the Phase I concept of operations, progress to date, and the Phase II transition. The DOSC and SRF Cdr updated CG, MDW on site operations and MDW support. SRF Cdr briefed CG, North Atlantic Div, COE on Phase I operations and Phase II transition.

2. OPERATIONS.

a. General. Site preparation commenced at 0730 with first entry monitoring. 300M exclusion zone confirmed evacuated by D.C. OEP at 0900. Redstone Arsenal reported that the C-23 aircraft departed for PBA at 1123. PBA reported that it landed at Grider Field at 1258. The rotary wing aircraft with the transferred shipment landed at PBA at 1410. The shipment was secured at 1537. Activities outside of the excavation site centered on assessing and preparing 3 liquid filled munitions for air transport to APG-EA. The munitions will be evaluated by the Portable Isotopic Neutron Spectroscopy (PINS) from Idaho National Laboratory, and further analyzed by drill and sample, if necessary.

b. Excavation site activities. Pit recovery operations resumed at 1005. It appears that they have unearthed the top of the major portion of a munitions and other material disposal pit. Pit operations ceased at 1520 because of the sheer volume of assessing recovered rounds and so that additional air monitoring and soil samples could be taken. TEU recovered 15 munitions: 13 ea 75 mm and 2 ea Levins.

c. Status of munitions.

(1) Munitions recovered:

Liquid filled	24
Solid filled	43
Unassessed	<u>15</u>
Total	82

(2) Liquid filled munitions shipped to PBA.

Levins projector	10
4.7" projectile	1
75mm projectile	<u>6</u>
Total	17

(3) Recovered munitions remaining on-site.

Liquid filled	7
Solid Filled	43
Unassessed	<u>15</u>
Total	65

d. Site Safety/Security. No change.

e. Next 24 hours. The site will be prepared for the SRF departure 16-21 Jan 93. Lockdown and security have been fully coordinated with all responders. Intend to make the shipment of sample munitions to APG-EA Saturday A.M.. Also intend to have a licensed hazardous waste contractor pick up the metal scrap for movement to an authorized landfill.

f. Future operations. Intend to allow SRF staff to get rest and meet on 20 Jan to have a predeployment brief. SRF Hq will have 24-hour coverage during this break in operations.

g. Phase II operations.

(1) SRF Legal Officer attended a videoconference hosted by the COE general counsel on claim concerns during Phase II.

(2) COE will conduct a magnetometer sweep at the work site according to the following schedule:

16-17 Jan 93 equipment preparation in Tennessee

18 Jan 93 travel day for contractor

19 Jan - 20 Jan 93 conduct sweep

20 Jan 93 deliver sweep results (Topo Product)

3. PUBLIC AFFAIRS. SRF staff responded to three media queries for information updates. Issued fact sheets on lewisite and portable isotopic neutron spectroscopy and information updates on mail delivery, work break, current munition status and evacuation expense reimbursement.

4. HOMEOWNERS/RESIDENTS. Received 18 citizen hotline calls expressing appreciation for the work break and for change in evacuation hours and asking for information on logistics of time off. Some calls were from construction workers asking when they would resume working. At community briefing SRF Cdr outlined for citizens mode of operation for the site during from 152100 Jan to 210800 Jan.

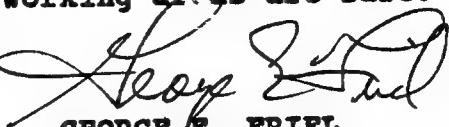
5. CIVIL AUTHORITIES. No change.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Plans for the five day break in place--homeowners and civil authorities support. Pit excavation going well. The safe move of munitions to Pine Bluff Arsenal

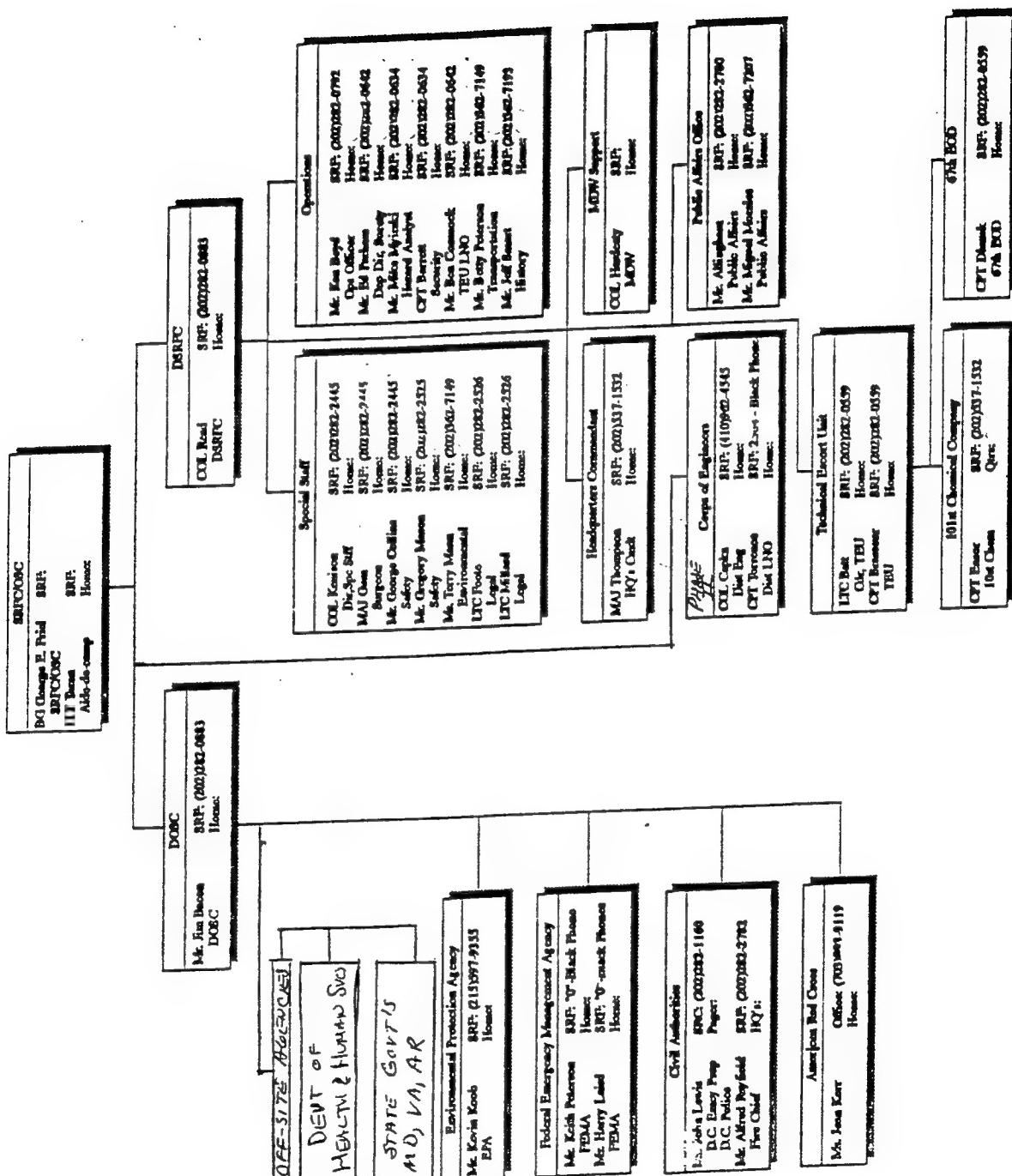
demonstrated the cooperative efforts of many organizations we need to finish this successfully. We will now move the sample munitions to Edgewood after getting 11th hour approval from the state of Maryland with the assistance of OASA IL&E (Mr. Walker). The sampling and continuous monitoring program continue to validate that the site and working areas are safe.

*Copy of last set
ORGANIZATIONS
List Attached*



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force
Commander

CF: CG, AMC
AMC EOC (AMCCB)
MDW EOC
CBDA EOC
PM Non-Stockpile, CMDA
Secret Service, Tech Security Div



16-bk 93

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP, 161200 Jan 93

1. GENERAL. No site briefings given today. No additional attachments/detachments today.

2. OPERATIONS. The AMCCOM Flt Det UH-1 was on station for the shipment to APG-EA at 0820. Repacking operations of one Livens projector into an approved container was concluded at 0915. Hazardous waste contractors arrived on site at 0945 and departed with manifested shipment at 1300. Chase UH-1 arrived on station at 1015. Lift off was 1125 and arrived APG-EA at 1200. The munitions were secured in the Chemical Transfer Facility, ERDEC at 1235.

a. General. Site preparation commenced at 0730 with first entry monitoring. There was no evacuation today.

b. Excavation site activities. All activities centered on security and integrity of protective coverings over the pit and the spoils piles.

c. Status of munitions. No change

d. Site Safety/Security. All munitions removed are sealed, packaged and stored in barricaded, locked milvans. A system was established for the residents inside the restricted area of the site that limits access to them, their guests, as well as the building contractor and Phase II personnel. This will control access to the pit area to only those personnel who have both a need to be there and who have been briefed by the SRF Hq.

e. Next 24 hours. ERDEC will continue to manufacture SRC's according to the manufacturing schedule.

f. Future operations. Emergency operations center has been relocated to CBDA Hq, Edgewood effective 1400. Advance party will return to Spring Valley site on 20 Jan 93. Site will be fully operational at 210730 Jan 93.

g. Phase II operations. No change.

3. PUBLIC AFFAIRS. Prepared SOPs for citizen hotline for soldiers manning phones during five day break. Provided information for soldiers who will accompany police on courtesy patrols.

4. HOMEOWNERS/RESIDENTS. Two residents adjacent to the site who were permanently evacuated on the recommendation of the SRF Commander were given a tour of the site by the SRF Commander and were allowed into their homes to retrieve personal items. Received two queries on why fire trucks were in area today.

Information updates were distributed door-to-door on status of operations during five day break.

5. CIVIL AUTHORITIES. The Director, D.C Office of Emergency Preparedness, expressed concern that several elements of the District response forces have expended significant funds to support Operations Safe Removal, and they need some assurance that the Army will reimburse expenses. Recommend TJAG and the ASA (IL&E) assist.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. The site is buttoned-up and safe. The task force we put on site today is trained and capable of maintaining safety and security while I am gone. I'm moving the center of gravity to Edgewood today. Will reconstitute and bring back a team beginning Wednesday night to see us through the end. I've notified the National Response Center (copy attached) of our status. The local residents are supportive of our plans for the next five days.



GEORGE E. FRIEL
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Service Response Force
Commander

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Secret Service, Tech Security Div

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP, 191800 Jan 93

1. GENERAL. Returned a telephone call to Senator Danforth this afternoon. He requested update on the situation at the site and a projection of future activities. Concerned about Phase II activities.

2. OPERATIONS.

a. NC

b. NC

c. Munitions: Livens projectile tapped. Contents at lab pending results.

d. Site Safety/Security: Acting on the direction of the DC Office of Emergency Preparedness, the DC police removed one of the traffic control points which controlled access to the immediate area around the site. Actual site and all government equipment still under military surveillance with assistance provided by DC police.

e. Next 24 hours: Advance party will return to site approximately 1800, 20 January.

f. NC

g. Phase II Operations. COE has used "down period" to conduct broader magnetometer sweeps. Results will be available late 20 January.

3. PUBLIC AFFAIRS. Responded to two calls from AP.

4. HOME OWNERS/RESIDENTS. Four hot line calls--dealing with evacuation plans.

5. NC

6. None

7. COMMANDER'S ASSESSMENT: The backup real time monitoring systems (RTAP) is at Edgewood undergoing calibration and will be

available at the site Thursday. Force Reconstitution efforts on track. Duty personnel at the site report no significant problems.

GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

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Secret Service, Tech Security Division

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 201800 Jan 93

1. GENERAL. Resupply and force reconstitution efforts underway at Edgewood. Lab analysis continued on samples brought to Edgewood on 16 Jan. DSRF Cdr escorted Senator and Mrs. Danforth on a tour of site.

2. OPERATIONS.

a. General. Advance party returned to site 201645 Jan 93. DSRF Commander currently on-site.

b. Excavation site activities. No change

c. Status of munitions. Two 75mm munitions tapped at Edgewood found to contain fuming sulfuric acid (experimental smoke). Livens projector still under analysis.

d. Site Safety/Security. No change.

e. Next 24 hours. Main body due to close on site 210700 Jan 93. Recovery operations to resume 200800 Jan 93. No shipment currently planned.

f. Future operations. SRF Cdr plans to continue operations on 0800-1800 schedule until mission complete. Shipments of recovered munitions will be resumed as soon as sufficient munitions have been overpacked.

g. Phase II operations. Initial COE magnetometer sweeps completed. Results will be briefed to SRF Cdr and staff 210730 Jan 93.

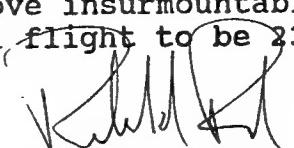
3. PUBLIC AFFAIRS. No change.

4. HOMEOWNERS/RESIDENTS. Numerous hotline calls received. Primary concerns are over evacuation times from 21 Jan and reimbursement procedures for evacuation-related costs. Community meetings will resume 211800 Jan 93.

5. CIVIL AUTHORITIES. No change.

6. ISSUES/REQUIREMENTS. HQDA guidance regarding evacuation reimbursements, procedures, limits, etc., needed before 21 Jan community meeting. Spokesperson/legal expert would be welcome.

7. COMMANDER'S ASSESSMENT. Site remains secured and no significant problems were encountered during "down period". Forecasted weather conditions for 21-22 Jan may hinder pace of operations, but should not prove insurmountable. Estimate earliest date for next removal flight to be 23 Jan 93.


RICHARD D. READ
Colonel, CM
Deputy Service Response Force
Commander

CF: CG, AMC
AMC EOC (AMCCB)
Comdt, CMLS
MDW EOC
CBDA EOC
Secret Service, Tech Security Div

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP, 212100 Jan 93

1. GENERAL. Site Hq reestablished 210700 Jan 93. Air assets: DAAF UH-1's on stand-by for HE movement; AMCCOM C-23 and UH-1 on site 24 Jan. Weather forecast at PBA not favorable until 25 Jan. Portable Isotopic Neutron Spectroscopy (PINS) on-site 1110 and was fully operational at 1300.

2. OPERATIONS.

a. General. Site preparation commenced 0800 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0900 with exception of one resident under physician orders to remain in bed. One member of Decon Plt to stand-by residence with two quick emergency pack respirators as a compensatory measure.

b. Excavation site activities. Pit operations commenced at 1020. Operations focused on expanding the pit opening to encompass the area defined by the COE survey conducted 18-20 Jan 93. Continued X-ray and assessment operations. Pit operations were ceased at 1710.

c. Status of munitions. Five munitions were recovered on 15 Jan after report was submitted. Two additional solid filled 75mm munitions recovered today. One 75mm previously reported as solid filled was reassessed as liquid upon warming.

(1) Munitions recovered:

Liquid filled	27
Solid filled	52
Unassessed	10
Total	89

(2) Liquid filled munitions shipped off-site

Levins projector	11
4.7" projectile	1
75mm projectile	8
Total	20

(3) Recovered munitions remaining on-site.

Liquid filled	7
Solid Filled	52
Unassessed	10
Total	69

d. Site Safety Security. SRF staff is working with the DC OEP to reduce police manpower requirements through the use of Jersey barricades, a roving patrol, and military support inside site perimeter. Expect this to be fully implemented by 250700 Jan 23.

e. Next 24 hours. Will continue to expand and remove dirt from pit area. CG, AMC will be briefed on Phase I accomplishments and the Phase II transition plan tomorrow morning.

f. Future operations. Working toward a 24 Jan shipment provided sufficient munitions are ready and weather is favorable.

g. Phase II operations.

(1) A planning meeting between the Baltimore District COE and the DOSE is scheduled for tomorrow afternoon. This meeting will focus on the upcoming transition "hand-off" meeting that will include Phase I, Phase II, federal, local and civil authorities.

(2) The Chief Counsel, COE, DoJ, and TJAG working toward procedures for implementation of the ASA (ILE) decision to reimburse reasonable expenses incurred by evacuation. The Baltimore District Engineer will host a town meeting to disseminate the information as soon as it is available.

(3) The Baltimore District Engineer hosted a working group this afternoon. Participants included representatives from the Baltimore District COE, the Topographic Lab, EOD Technologies, Huntsville Division COE, and the CBDA Historian. The session focused on archival research, data gathering and management strategies.

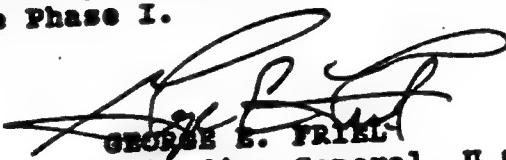
3. PUBLIC AFFAIRS. Issued two media advisories to 15 media outlets on resumption of work and status of munitions found by TEU. Responded to five media queries for information updates. Issued community update/advisory on resumption of work and on road closings. Issued fact sheets on Cdr, TEU and unit biographies, and the COEs' Ultrasonic Ranging Data Acquisition System (USRADS).

4. HOMEOWNERS/RESIDENTS. SRF Cdr prebriefed developer Miller Company and co-chairs of Homeowners Group plus two permanently evacuated residents on findings of COE analysis of site. He later briefed area residents on same findings at nightly town hall meeting.

5. CIVIL AUTHORITIES. Coordination reestablished with DC OEP and is working well. Adequate police, fire, hazmat, and EMT support on-site.

6. ISSUES/REQUIREMENTS. Mr. D. Walker, OASA (ILE) has given permission for the 1986 THAMA Report to be released to the public. Request THAMA provide 15 copies of this report to the SRF Cdr for distribution to the developer and homeowners' representatives.

7. COMMANDER'S ASSESSMENT. The restart went as well as possible. Area is still safe. I have all the equipment we need to proceed with a deliberate pace to excavate the pit. The EOD Technologies contractor completed a preliminary survey and presented their findings to the SRF today. Bottom line-I believe the pit and trench area are where we believed they were. They also convinced me we have two or three other pockets of potential munitions in the vicinity of the house next door. I've asked the COE to do intrusive analysis to determine depth, size and content. Expect results early next week. This adds a dilemma to the decision to terminate Phase I.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

CF: CG, AMC
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Comdt, CMLS
MDW EOC
CBDA EOC
TBU EOC
PM, NS, CMDA
TSD, US SS

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 222100 Jan 93

1.. GENERAL. The following were briefed today on concept of operations and progress to date: CG, AMC; Dep Dir, DAMO-OD; and the ATSD (AE) (CM)).

2. OPERATIONS.

a. General. Site preparation commenced 0700 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0845. One TEU soldier was referred to WRAMC by the SRF Surgeon for evaluation of a possible viral infection and complaint of headache. PINS operational at 1010.

b. Excavation site activities. Pit operations commenced at 0850. EOD Technologies, Inc. started removing topsoil from the existing circumference of the pit out to the estimated circumference determined by COE study. This estimated circumference is ten feet toward house and 15 feet left to right. Soil removal will be 18 to 24 inches deep. Recovered more broken laboratory glassware and scrap metal today. The glassware has been isolated and will be analyzed at Edgewood. Additional soil samples were shipped to Edgewood for analysis.

c. Status of munitions. Sixteen munitions/components recovered from pit: 11ea 75mm; 1ea 3 inch Stokes mortar; one empty cylinder; 1ea Livens projector; and two ignitors. Two liquid filled Livens were reassessed for disposal by demolition.

(1) Munitions recovered:

Liquid filled	25
Solid filled	68
Unassessed	12
Total	105

(2) Liquid filled munitions shipped off-site

Levins projector	11
4.7" projectile	1
75mm projectile	8
Total	20

(3) Recovered munitions remaining on-site.

Liquid filled	7
Solid Filled	66
Unassessed	12
Total	85

d. Site Safety/Security. The compensatory site security measures addressed in 21 Jan 93 SITREP will not be necessary. The Metropolitan Police Department will provide required resources for the duration of Phase I.

e. Next 24 hours. Primary effort is to continue contractor operations to clear the area surrounding the original pit using magnetometers and trackhoe to determine boundary. Recovery operations in original pit will continue.

f. Future operations. Primary effort is to continue to package and prepare munitions for shipment off-site. Intent is to ship all munitions that cannot be positively assessed as HE or WP to PBA in approved containers. The remaining rounds will be shipped to Ft A.P. Hill as previously discussed. Anticipate first airlift on the morning of 26 Jan.

g. Phase II operations.

(1) COE will continue to evaluate and define the pit and trench area. This effort will be accomplished during the Phase I operation. The evaluation will use magnetometers, ground conductivity meters and ultrasonic ranging and data systems. Evaluation will be conducted 24-25 Jan. Final results are expected within 48 hours after completion.

(2) A cross sectional investigation of the suspected pits identified during the 18-19 Jan evaluation is scheduled for 24-28 Jan. Data collected during this investigation will further define the area of concern by adding a depth dimension to the original data. Final results are expected within 48 hours after completion.

3. PUBLIC AFFAIRS. SRF staff issued one media update to 18 media outlets based on information discussed at community meeting last night. Provided update to American University public affairs officer. Granted interview to one print outlet. Responded to three telephone media queries, one from Soldiers' Magazine who wants to visit next week and one from channel 5 who sent a videographer to site. Contacted Army Times whose editor wants to visit next week.

4. HOMEOWNERS/RESIDENTS. Responded to 16 calls on citizen hotline. Concerns are effects of evacuation on businesses, when will operations end, what are reasonable expenses and evacuation inconveniences/frustrations. SRF Cdr briefed area residents on today's operations.

5. CIVIL AUTHORITIES. Prepared a memorandum for use by the DC OEP for those residents that are minimally beyond the 300M exclusion zone. The protective action recommendation, should there be an accidental chemical release, is to shelter in place.

6. ISSUES/REQUIREMENTS. Special provisions for installation support will be identified in the advanced shipment notification. Need to ensure that all installations providing special support for the air movement are provided advance notification to comply with DHHS requirement to have support in place before shipment begins..

7. COMMANDER'S ASSESSMENT. The site operations went well today-in spite of the weather. Area is still safe. Have decided the best policy on munitions is to consider all possible chemical fills if we cannot positively identify them as HE or WP. We need to quickly show good faith on our policy to reimburse reasonable expenses. My inability to tell the local residents the real length of time has caused several to make decisions on alternative living arrangements to return life to normal. Several families have hardships that may cause them to incur significant expenses. Need team on-site to begin assessment (by interview) of what is and is not reasonable, and set up appointment to begin processing. Waiting until we have forms to fill out for processing and then defining what is reasonable is not what is needed to show good faith on our part. Currently, I don't have control of this process! Still assessing impact of additional pockets of potential munitions on our time line. We brief CSA and staff Monday on options.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

CF: CG, AMC
AMCOC (AMCCB)
Comdt, CMILS
MDW EOC
CBDA EOC
TEU EOC
PM, NS, CMDA
TSD, US SS

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 232100 Jan 93

1. GENERAL. The Director, Surety Field Activity was briefed on SRF concept of operations and progress to date. A Chemical School LNO arrived on-site 231600 Jan to assist with documentation of lessons learned.

2. OPERATIONS.

a. General. Site preparation commenced 0805 with first entry monitoring. There was one resident who reportedly refused to evacuate thus requiring limited hazardous operations until confirmation of full evacuation was received. 300M exclusion zone confirmed evacuated by DC OEP at 1025. Because of this continued difficulty in confirming a 100% evacuation, the SRF Cdr requested the D.C. Mayor to declare a limited state of emergency during the hours of 0800-1800 each day.

b. Excavation site activities. Pit operations commenced at 0935. One liquid filled bottle was recovered, bagged and is currently being analyzed on-site. Initial analysis indicates probable water. Additional laboratory materials were also recovered today. The priority for PINS analysis has been redirected to solid filled munitions to give the SRF Cdr a more definitive confirmation of HE filled munitions versus chemical fill. Pit operations were ceased at 1712.

c. Status of munitions. Two each 75mm projectiles and one burster were recovered today. Two munitions were reassessed as scrap.

(1) Munitions recovered:

Liquid filled	25
Solid filled	68
Unassessed	<u>14</u>
Total	107

(2) Liquid filled munitions shipped off-site

Levins projector	11
4.7" projectile	1
75mm projectile	<u>8</u>
Total	20

(3) Recovered munitions remaining on-site.

Liquid filled	7
Solid Filled	66
Unassessed	<u>14</u>
Total	87

d. Site Safety/Security. No change.

e. Next 24 hours. Intent is to have contractor finish the topsoil removal operation to expand the excavation site, and continue to do magnetometer sweeps in the court to clear areas for repositioning of equipment and construction materials. This will facilitate action on additional areas of concern. Work in the expanded pit area will continue. PINS screening of 75mm for demolition candidates will continue.

f. Future operations. Intent is to continue efforts to prepare shipments to PBA and Ft. A.P Hill on 26 Jan. Capability will be established at Ft A.P. Hill to conduct soil sampling before and after detonation to ensure that no contamination has occurred.

g. Phase II operations.

(1) The Chief Counsel, Baltimore District COE attended this evening's public meeting to address concerns regarding reasonable reimbursements.

(2) Coordination for the continued electromagnetic survey of the work site is complete. The survey will occur on 24 and 25 Jan. Preliminary results will be ready on the evening of 24 Jan. Final results will be ready on 27 Jan.

3. PUBLIC AFFAIRS. Issued one media update based on information discussed at community meeting last night to 14 media outlets and one media advisory announcing change in meeting time tonight and tomorrow night to seven media outlets. Responded to inquiries from Washington Post, WTOP News Radio and local TV Channel 9. Channel 7 camera person visited Media Center. Issued one community advisory announcing change in community meeting time tonight and tomorrow night. Prepared community/media advisory for release announcing SRF Cdr's decision to request limited state of emergency to enforce evacuations.

4. HOMEOWNERS/RESIDENTS. Responded to 13 citizen hot line calls mainly dealing with inconveniences of, reason for and length of evacuation. Although the majority of the residents have voluntarily complied with the requested evacuation procedures, an increasing number of evacuation violations were beginning to disrupt operations.

5. CIVIL AUTHORITIES. Fire Department and EMS assets were scaled down to support other city requirements. Permanent liaison officer established with DC OEP to ensure that there is not a compromise of necessary responder assets. SRF concerns have been communicated to DC OEP.

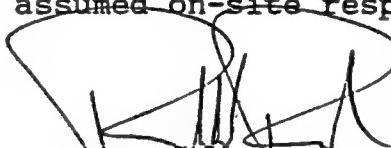
6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Despite numerous interruptions, excellent progress was made at the excavation site using mechanical means to remove topsoil. Anticipate being able to finally define pit boundaries by 24 Jan. Recovery operations are expected to accelerate from that point on. Work begins tomorrow to attempt to define the test trench complex. Once clear areas are defined, equipment repositioning will allow simultaneous work on excavation and further investigation/definition of additional suspect sites.

SRF Commander requested limited state of emergency from DC Mayor in order to empower civil authorities to enforce established evacuation requirements. Safety for both the public and the forces on site remains paramount.

Arrival on-site of legal representatives from Baltimore District COE has significantly alleviated challenge of dealing with resident's concerns regarding reimbursement.

SRF Commander departed for Edgewood 231700 Jan. ETR 240800 Jan. Deputy SRF Commander assumed on-site responsibilities.



RICHARD D. READ
Colonel, CM
Deputy Service Response Force
Commander

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MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 242100 Jan 93

1. GENERAL. There were no site briefings given today. SRF Cdr briefed Senator and Mrs. Danforth after town hall meeting today. There were no attachments/detachments.

2. OPERATIONS.

a. General. Site preparation commenced 0800 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0900.

b. Excavation site activities. Excavation operations commenced at 1415 with no restrictions. This delay was for COE to finish magnetometer and electronic mapping operations in the area. Efforts were directed toward excavation of the area directly in front of the original pit. The area excavated yesterday yielded only two to three pieces of scrap metal. Continue to get positive magnetometer indication of metal in the original pit. Total excavation dimension is now 25' (street side) x 35' (house side) and 5' deep. PINS operational at 1035. PINS analysis confirmed that four 75mm projectiles were empty and one Livens projector displayed a chlorine content signature. Operations were ceased at 1750.

c. Status of munitions. Three 75mm projectiles-solid fill and one Livens projector-liquid fill were recovered.

(1) Munitions recovered:

Liquid filled	26
Solid filled	71
Unassessed	<u>14</u>
Total	111

(2) Liquid filled munitions shipped off-site

Levins projector	11
4.7" projectile	1
75mm projectile	<u>8</u>
Total	20

(3) Recovered munitions remaining on-site.

Liquid filled	8	(5 packed for shipment)
Solid Filled	<u>69</u>	71
Unassessed	<u>14</u>	
Total	91	

d. Site Safety/Security. In addition to real time monitoring for mustard, the on-site team is now performing continuous air monitoring for oxygen levels and phosgene in both the pit area and the munition assessment area. Lower explosive limit meter has been initiated for presence of TNT.

e. Next 24 hours. Intent is to continue to work toward completion of UXO recovery in the original pit. Exploratory operations to fully define the boundary of the trench training area will be conducted simultaneously if it does not interfere with recovery operations. Will send an EPA/Army team to Ft. A.P. Hill to take soil samples tomorrow.

f. Future operations. C-23 aircraft will be on station 25 Jan to support munitions shipments to PBA. C-23 shipment to PBA will be as early as 26 Jan or when there is a full load. Will move three 75mm HE munitions to Ft. A.P Hill with DAAF aircraft for a test demolition on 26 Jan.

g. Phase II operations.

(1) COE began an electromagnetic survey of the work site. Approximately 50% of the survey was completed today. Preliminary results are expected tonight. Survey will be complete on 25 Jan.

(2) A geological survey was started today to assist in locating trench.

(3) Chief Counsel, Baltimore District COE will develop guidelines by COB 25 Jan for reasonable reimbursement of expenses incurred by evacuees and briefed to the residents without delay.

3. PUBLIC AFFAIRS. SRF PAO issued several fact sheets on hazard analysis, information on yesterday's operations and reimbursement planning to 16 media outlets and community center. Responded to four telephonic media queries and provided two television interviews to channel 8 and channel 9 on operations updates and limited state of emergency. Channel 7 covered evening meeting and interviewed SRF Cdr. Instituted twice-daily posting of on-site weather data in community center and media center. Provided update to American University public affairs officer.

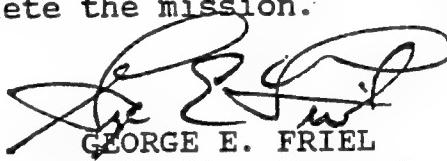
4. HOMEOWNERS/RESIDENTS. Responded to seven citizen hotline calls focusing on evacuation. Commander briefed residents on today's operations at regularly scheduled evening meeting.

5. CIVIL AUTHORITIES. Due to repeated difficulties in the Metropolitan Police Department efficiently managing the security support requirement, the DC OEP is considering the use of DC ARNG. If approved, soldiers could be on-site within 48 hours. The DC Dept of Human Services began providing counselling service for residents at the community center today.

6. ISSUES/REQUIREMENTS. Need copies of the 1986 report on-site ASAP. A complete report will help the SRF task force in our analysis and also satisfy public requests. The Army must be prepared to deal with the concerns expected to arise from the public review of the document.

7. COMMANDER'S ASSESSMENT. Continued difficulty in evacuating area reinforces need for emergency declaration by DC Mayor. The COE survey efforts appear to confirm our initial assumption on the location of the trench site and the suspected disposal pit. We have added additional safety procedures and monitoring activities to the work area, and have increased medical surveillance of our people in the pit because of our concerns for the impact of stress and fatigue. Believe we can press on to clean the disposal pit and simultaneously evaluate my concerns with trench complex. The Task Force is still upbeat and have sufficient assets to complete the mission.

We



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

CF: CG, AMC
AMCOC (AMCCB)
Comdt, CMLS
MDW EOC
CBDA EOC
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MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 242100 Jan 93
(Change 1)

Change paragraph 2 (Operations), subparagraph c (Status of munitions), section (3) (Recovered munitions remaining on-site) to read:

Liquid filled	6 (5 packed for shipment)
Solid Filled	71
Unassessed	14
Total	91



Philip Rappa III
First Lieutenant, U.S. Army
Night Duty Officer

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 252100 Jan 93

1. GENERAL. SRF Cdr briefed the following on site operations and progress to date: CSA; Acting SA; and Comdt, Chemical School. SRF Cdr also briefed officials from MD Dept of Environment and APG on site operations and the need for additional munition content analysis to be performed at Edgewood. This meeting resulted in approval to ship up to five non-explosively configured munitions for analysis. C-23 aircraft arrived on station at Andrews AFB at 1645.

2. OPERATIONS.

a. General. Site preparation commenced 0800 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0845. Soil sampling completed at Ft. A.P Hill in preparation for demolition operations. PINS analysis of eleven items indicated four munitions with possible chemical fill (two 75mm and two 4.7 projectiles). Operations ceased at 1745.

b. Excavation site activities. Excavation operations commenced at 0915 with no restrictions. The boundaries of the pit were firmly established so priority was directed to going deeper to recover exposed munitions. Contractor operations focused on excavating two L-shaped trenches around two other areas of concern so that electromagnetic analysis could be completed.

c. Status of munitions. Twenty-three 75mm solid fill munitions were recovered today. The 4.7" projectile that was shipped to PBA was erroneously reported as liquid filled. Nine munitions are packed and ready for shipment.

(1) Munitions recovered:

Liquid filled	27
Solid filled	90
Unassessed	<u>14</u>
Total	131

(2) Munitions shipped off-site to date:

Livens projector	11
4.7" projectile	1 (Solid fill)
75mm projectile	<u>8</u>
Total	20

(3) Recovered munitions remaining on-site:

Liquid filled	8
Solid Filled	89
Unassessed	<u>14</u>
Total	111

d. Site Safety/Security. No change

e. Next 24 hours. EOD operations at Ft. A.P. Hill have been coordinated for 26 Jan. Eight munitions will be prepared for sampling using shaped charge detonation. Once samples are taken, munitions will be totally destroyed.

f. Future operations. Air shipment to PBA has been tentatively scheduled for 27 Jan. Intent is to remove an additional load of scrap metal by a hazardous waste contractor on 27 Jan, and to ship up to five additional liquid filled munitions to Edgewood for analysis as early as 29 Jan.

g. Phase II operations.

(1) The COE continued the electromagnetic survey of the work site and cross sectional evaluation of suspected pit areas. Soil samples were taken by EPA and an archeological survey was completed during the cross sectional investigation. The effort will continue until the entire inner and outer trenches are defined, and will not disrupt Phase I operations. Expect this effort to be completed after the current pit is cleared and TEU can reposition their support equipment.

(2) The first transition meeting between the Baltimore District COE and SRF is scheduled for 261400 Jan.

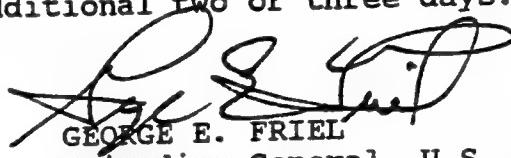
3. PUBLIC AFFAIRS. SRF Cdr met with the vice president and two other officers of American University to discuss public ramifications of disclosure of 1986 THAMA report. SRF PAO issued three information updates: number of personnel supporting Operation Safe Removal; general information update based on info released at last evening's meeting; and testing and detonation of solid-filled rounds. Responded to eight media queries including radio stations WTOP and WMAL and visits by channels 7 and 16.

4. HOMEOWNERS/RESIDENTS. Responded to 21 citizen hotline calls concerning impact of limited state of emergency, length of time left in operation and general updates. To date, we have received 247 hotline calls. Commander briefed residents and citizens in nightly community meeting with principle emphasis on status of request for limited state of emergency and progress of work on site.

5. CIVIL AUTHORITIES. Security measures were discussed today in meeting attended by senior officials of the SRF, DC OEP and Metropolitan Police Department. Proposed actions will greatly improve the future security posture/evacuation procedures.

6. ISSUES/REQUIREMENTS. None

7. COMMANDER'S ASSESSMENT. Reviewed current safety procedures today. Still satisfied that operations are safe and we are postured to certify the area meets the standards for Phase I termination. Still waiting for the Mayor's decision on the limited emergency declaration which I need to help manage the safety zone. Am still comfortable that the disposal pit is defined and my objective still remains to complete munitions recovery by Friday. If we are successful--site closure and certification could take additional two or three days.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

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MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 262100 Jan 93

1. GENERAL. DSRF Cdr briefed Assistant Administrator, EPA on site operations and progress to date to allow update for new Administrator, EPA.

2. OPERATIONS.

a. General. Site preparation commenced 0802 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0810. Plan to sample munitions at Ft. A.P Hill changed to a general EOD operation. Mission approval from VA state officials arrived too late to permit mission completion. Mission rescheduled for 27 Jan. PINS analysis of 12 75mm projectiles indicated 2 munitions with possible chemical fill. Operations ceased at 1745.

b. Excavation site activities. Excavation operations commenced at 0910 with no restrictions. The original pit is now certified ordnance free by independent TEU and COE magnetometers sweeps. Excavation and munition recovery operations were shifted to the second area of concern now designated as Pits 2 and 3. Twelve munitions are packed for shipment.

c. Status of munitions. No change.

(1) Munitions recovered:

Liquid filled	27
Solid filled	90
Unassessed	<u>14</u>
Total	131

(2) Munitions shipped off-site to date:

Livens projector	11
4.7" projectile	1 (Solid fill)
75mm projectile	<u>8</u>
Total	20

(3) Recovered munitions remaining on-site:

Liquid filled	8
Solid Filled	89
Unassessed	<u>14</u>
Total	111

d. Site Safety/Security. Reviewed site safety and revised protective measures for TEU assessment tent in accordance with site hazard analysis. Personnel began the day in the assessment tent dressed level C and disposable coveralls. Tonight, will

in

build sandbag barricade between assessment tent and packaging tent to minimize fragment and blast hazard to adjacent operation.

e. Next 24 hours. Still intend to make shipments to PBA and Ft. A.P. Hill, and plan for Edgewood shipment for analysis. Efforts will focus on packaging munitions, and clearing the other areas of concern with objective of certifying Phase I area clear of ordnance.

f. Future operations. Intent is to proceed with movements of munitions off site and start site cleanup operations.

g. Phase II operations.

(1) COE continued the electromagnetic survey of the work site and cross sectional evaluation of the other areas of concern.

(2) The Phase II field office, consisting of three trailers, will be located at the COE aqueduct area. Coordination for the office is complete. Intent is to have field office operational on 1 Feb.

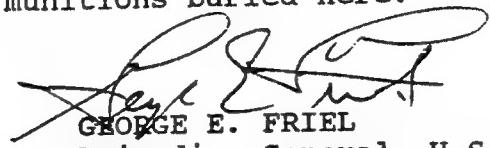
3. PUBLIC AFFAIRS. Issued five information updates: general daily update, information on mail delivery, medical support to SRF, COE reimbursement summary, and severe weather policy. Prepared fact sheets on World War I munitions that may be found in this area and could have contained chemical agent. Responded to 13 media queries. Hosted Soldiers Magazine for background interviews on Tech Escort Unit and provided photos to Federal Times.

4. HOMEOWNERS/RESIDENTS. SRF Cdr updated residents on excavation progress in the pit and outlined a tentative timetable for completion of cleanup work. Received 12 calls on citizen hotline. Concerns were reimbursement, rumored expansion of evacuation area and any word from DC Mayor. To date, have received 265 calls on hotline.

5. CIVIL AUTHORITIES. During meetings with DC City Administrator and Councilman Nathanson, SRF Cdr outlined his concerns and reasons for requesting a limited state of emergency from Mayor Kelly. The continuing problem with violations of the voluntary evacuation necessitate empowering the Metropolitan Police Dept with sufficient authority to enforce the essential evacuation. Both the administrator and the councilman acknowledged support for the SRF Cdr requests.

6. ISSUES/REQUIREMENTS. Immediate need exists to notify affected residents and city officials of potential Phase II areas of interest prior to public release of 1986 THAMA report.

7. COMMANDER'S ASSESSMENT. Things went well today. Still expect to finish excavation of all munitions by Friday. Finished the rough survey of trenches today--Feel comfortable we have assessed all the possible munitions buried here.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

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MEMORANDUM FOR DAMO-ODO-CAI

SUBJECT: SRF Commander's SITREP 272100 Jan 93

1. GENERAL. SRF Cdr briefed the CG, North Atlantic COE on site operations and Phase II transition plans.

2. OPERATIONS.

a. General. Site preparation commenced 0800 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0830.

Shipment Times (Local):

<u>Aircraft</u>	<u>Dprt SV</u>	<u>Arr AAFB</u>	<u>Dprt AAFB</u>	<u>Arr RSA</u>
UH1-Haz 1	0954	1015	1047	
UH1-Haz 2	1124	1145	1205	
C-23 Haz			1230	1738

	<u>Dprt SV</u>	<u>Arr APH</u>	<u>Dprt APH</u>	<u>Arr SV</u>
UH1-HE	1217	1320	1500	1600

The EOD operation was uneventful and appeared to be an ordinary HE detonation. Gross level M-18 monitoring was negative. Post-detonation soil samples were collected for analysis. PINS analysis of 18 projectiles indicated 3 munitions with possible chemical fill. Operations ceased at 1730..

b. Excavation site activities. Excavation operations commenced at 0845 with no restrictions. Pits 2 and 3 were declared ordnance free at 1545. Exploration started in an area underneath the driveway of the residence to the right of Pit 1, now designated as Pit 4. 40 munitions are packed for shipment to Ft. A.P. Hill.

c. Status of munitions. 3ea Livens, 5ea 4.7" projectiles, and 4ea 75mm projectiles shipped off site to PBA for storage. 8ea 75mm projectiles shipped off site to Ft. A.P. Hill for EOD operations. One burster was reassessed from scrap to munition.

(1) Munitions recovered:

Liquid filled	27
Solid filled	91
Unassessed	<u>14</u>
Total	132

(2) Munitions shipped off-site to date:

Livens projector	14
4.7" projectile	6
75mm projectile	20
3" Stokes projectile	0
Total	40

(3) Recovered munitions remaining on-site:

Liquid filled	4
Solid Filled	74
Unassessed	14
Total	92

d. Site Safety/Security. Final site risk assessment was prepared, staffed and approved by SRF Cdr. Upgraded personal protective equipment in the assessment area to level C and established a 5 meter exclusion area.

e. Next 24 hours. Efforts will focus on packaging munitions for shipment and repositioning equipment so the COE can conclude electromagnetic surface sweeps of the court.

f. Future operations. Planning underway for airshipment of sample liquid filled munitions to Edgewood, and an additional shipment to PBA on 29 Jan. Next HE shipment to Ft. A.P. Hill for destruction planned for 30 Jan.

g. Phase II operations.

(1) Phase II field office to be operational on 1 Feb.

(2) Baltimore District Engineer will brief the Phase II concept of operations at public meeting on 28 Jan.

(3) Second Phase II transition meeting is scheduled for 291000 Jan. Attendees will include SRF, COE, federal, and local civil authorities.

3. PUBLIC AFFAIRS. Issued three media/community advisories on: soil sampling, update based on information released at meeting last night and availability of guest passes to enter the area during the weekend. Responded to 21 media queries most of which focused on mayor's evacuation order and fly-out of munitions. Federal Times interviewed three civilians and Soldiers Radio and Television interviewed four soldiers on camera. Hosted media visits from WRC Radio, WMAL Radio, WRC-TV and a photographer from the Washington Times. Briefed public affairs officers from AMCCOM, TECOM, ANAD and UMDA on SRF PAO operations.

4. HOME OWNERS/RESIDENTS. Responded to 12 citizen hotline calls on wide range of concerns. Total calls to date 281. SRF Cdr conducted his 14th community town hall meeting reporting on successful operations of the day.

5. CIVIL AUTHORITIES. The emergency declaration was signed by the DC Mayor. Evacuation was orderly and quickly completed.

6. ISSUES/REQUIREMENTS. None

7. COMMANDER'S ASSESSMENT. The area is still safe--still believe we can terminate the emergency evacuation phase on 29 Jan. Anticipate munitions shipments and site closure operations will extend until at least 3 Feb.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

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MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 282100 Jan 93

1. GENERAL. No site briefings given today. PINS operators and equipment departed site at 1600.

2. OPERATIONS.

a. General. Site preparation commenced 0807 with first entry monitoring. 300M exclusion zone confirmed evacuated by DC OEP at 0848. C-23 arrived at Grider Field at 1156 local. Munitions secured at PBA at 1437. PINS analysis of nine projectiles indicated none had a possible chemical fill. Operations ceased at 1800.

b. Excavation site activities. Excavation operations commenced at 0907 with no restrictions. Exploration of pit 4 continued after electrical feed to the residence was terminated. Pit 4 declared ordnance free at 1055. There was no further excavation activity.

c. Status of munitions. All remaining munitions are packed for shipment. Four additional items were reassessed from scrap to solid filled munition.

Munitions recovered:

Liquid filled	30
Solid filled	<u>106</u>
Total	136

d. Site Safety/Security. Plan for weekend site security approved and forwarded to Metropolitan Police Dept and A Co, 3rd Inf. TEU will operate in level E and dismantle the PDS.

e. Next 24 hours. Intent is to airship five munitions to APG as samples and airship five liquid filled munitions to PBA for storage. Intend to assess staff requirements for next week and plan for redeployment of nonessential personnel.

f. Future operations. Intent is to airship HE and WP munitions to Ft. A.P Hill for EOD operations, and have hazardous waste contractor remove scrap metal on 30 Jan. 101st Decon Co (-) will redeploy to Ft Bragg on 30 Jan.

g. Phase II operations.

(1) First Phase II meeting with residents of Sedgewick Rd scheduled for 282000 Jan.

(2) COE distributed reimbursement notices and will schedule interviews at the public meeting 28 Jan.

3. PUBLIC AFFAIRS. One media/community advisory with information updated at last night's town hall meeting issued to media outlets and to residents at the community center. Hosted site visits of COE and PBA PAO. Responded to 17 media queries asking for updates and evacuation information including on-site visits by TV channels 5, 7 and 8.

4. HOMEOWNERS/RESIDENTS. Responded to 26 calls on citizen hotline. Concerns were reimbursements, evacuation schedule and updated information. Total calls to date: 311. SRF Cdr conducted 15th town hall meeting.

6. ISSUES/REQUIREMENTS. None

7. COMMANDER'S ASSESSMENT. Today, we completed the excavation, and all our soil analyses and monitoring so far indicate the area is free of contamination. Expect to do a handoff briefing to COE tomorrow, and complete the withdrawal of the SRF by next Wednesday. Most emergency response forces will leave by Saturday.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

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MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 292100 Jan 93

1. GENERAL. SRF Cdr briefed Deputy ASA (IL&E, Mr. Walker) on site operations and progress to date. FEMA communication support will be terminated tonight in preparation for redeployment tomorrow.

2. OPERATIONS.

a. General. Site activity commenced 0740 with first entry monitoring. No evacuation of residents today.

Sortie Times (Local):

Aircraft	Dprt SV	Arr AAFB	Dprt AAFB	Arr RSA (RON)
UH1-Haz 1	0937	1002	1030	
C-23 Haz 1			1123	1625
	Dprt SV	Arr APG		
UH1-Haz 2	1225	1325		

b. Excavation site activities. No change.

c. Status of munitions. One 4.7" projectile with a small quantity of liquid fill and an empty burster well was found under construction material on the second floor of the house behind Pit 1. TEU conducted a search of all other houses under construction in the court with negative results. The 4.7" munition was added to the Edgewood sample shipment. Four additional items that were scrap were reassessed to the demolition account because they looked like UXO. Five munitions: 2ea Livens projectors and 3ea 75mm projectiles airshipped off-site to PBA for storage. Six munitions: 1ea Livens projector, 1ea 4.7" projectile and 4ea 75mm projectiles shipped to Edgewood as samples for analysis. The Edgewood shipment was safely stored at 1345.

(1) Munitions recovered to date:

Liquid filled	31
Solid filled/	
Explosive Components	<u>110</u>
Total	141

(2) Munitions shipped off-site to date:

Livens projector	17
4.7" projectile	7
75mm projectile	27
3" Stokes projectile	<u>0</u>
Total	51

(3) Recovered munitions remaining on-site:

Liquid filled	0
Solid Filled/	
Explosive Components	<u>90</u>
Total	90

d. Site Safety/Security. No change.

e. Next 24 hours. Will ship HE and WP munitions to Ft. A.P Hill for EOD operations, subject to weather restrictions. Rest of day will be devoted to equipment cleaning and PMCS in preparation for redeployment or turn-in. Intend to secure for the weekend and close site 301500 Jan.

f. Future operations. Will not work on 31 Jan and will return to operational status with a reduced staff 010730 Feb. Will continue site closure operations with objective of clearing on 3 Feb. Hazardous waste contractor will remove remaining scrap metal on 1 Feb.

g. Phase II operations.

(1) District Engineer plans to brief the Phase II concept to the public on 041930 Feb at a special town hall meeting.

(2) District Engineer will have a meeting with the Sedgewick area residents on 011930 Feb. Intent is to introduce COE staff and discuss Phase II concept of operations. This is a repeat of last night's meeting.

(3) COE began accepting requests for reimbursement today. Interviews will continue throughout the weekend. 17 residents interviewed and \$31.6K in actual expenses requested as of 1700.

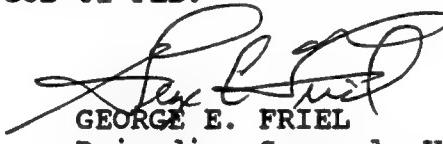
3. PUBLIC AFFAIRS. Issued three media/community advisories last night after SITREP preparation to media outlets and community center on the following subjects: update on information released at evening meeting regarding end of hazardous operations and resident evacuations; opening of Dalecarlia Parkway on a permanent basis; and suspension of town hall meetings until 021800 Feb. Today, issued two media/community advisories to media outlets and community center on: Tech Escort finding one 4.7 inch artillery round hidden in an unfinished home on the construction site and SRF personnel recognizing Red Cross support by a donation to the National Capital Chapter. Responded to 11 media queries including live interviews with WMAL Radio and TV Channel 4.

4. HOMEOWNERS/RESIDENTS. Received 16 citizen hotline calls. Reimbursements and evacuation were main concerns. Talked with COE personnel on importance of continuing same citizen hotline number to answer residents' questions and concerns. Total calls to date: 331.

5. CIVIL AUTHORITIES. All nonessential fire, HAZMAT, and EMT support have been released to regular duty.

6. ISSUES/REQUIREMENTS. None

7. COMMANDER'S ASSESSMENT. Phase II transition meeting with all agencies went well today. Cdr, Baltimore District COE and SRF staff met with Sedgewick Street residents last night to begin analysis of the phase II priority area (the second set of trenches)--it went well. The procedures for obtaining clearance from the State of VA to transport munitions to Ft. A.P. Hill are unrealistically restrictive, and include additional requirements not related to UXO demolition operations. Although I expect to meet all requirements for tomorrow's mission, we need to establish and coordinate realistic procedures for future operations of this type. Expect to remove most equipment and materiel from the site by COB 01 FEB.



GEORGE E. FRIEL
Brigadier General, U.S. Army
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MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 301500 Jan 93

1. GENERAL. No site briefings given today. Detachments: 101st Chem Co (-) departed at 0800. FEMA Mobile Airtransportable Telecommunications System (MATTs) departed at 0900.

2. OPERATIONS.

a. General. Site activity commenced 0745. No evacuation of residents today. Site secured for weekend at 1200.

Sortie Times (Local):

Aircraft	Dprt SV	Arr APH
UH-1 WP	0947	1025
UH-60 HE	1025	1100

	Dprt RSA	Arr PB	Dprt PB	Arr PBA
C-23 Haz	1005	1152		
CH-47 Haz			1230	1249

EOD operations commenced at 1250 and were completed at 1335. Post detonation soil sample taken by EPA. DAAMS samples were taken during detonation and M-18 checks made after detonation. Munitions were safely stored at PBA at 1344.

b. Excavation site activities. No change.

c. Status of munitions.

(1) Munitions recovered to date:

Liquid filled	31
Solid filled/	
Explosive Components	110
Total	141

(2) Munitions shipped off-site to date:

Livens projector	21
4.7" projectile	7
75mm projectile	79
3" Stokes projectile	7
Misc projectile	4
WP ignitors	20
Burster components	3
Total	141

(3) All recovered munition off-site at 301025 Jan.

d. Safety/Security. All equipment on site secured for weekend effective 301200 Jan 93. Police force will provide security. Military presence provided by duty Officer/NCO and patrols around equipment.

e. Next 24 hours. No change.

f. Future operations. No change.

g. Phase II operations. No change.

3. PUBLIC AFFAIRS. Last night after SITREP was printed issued one media advisory to 17 media outlets and one community advisory to community leaders and homeowners' spokesperson on times and location for viewing last munitions removal flights today. Hosted media event for final flights of munitions off-site. TV Channels 4, 5, 7, 8 and 9, an independent TV producer and a Washington Post photographer attended. SRF Cdr and TEU Cdr provided interviews to all media in attendance. Several area residents attended and were interviewed by media. Issued one media advisory announcing that all munitions have been removed from the site. Responded to three media phone queries including one taped interview for WMAL Radio.

4. HOMEOWNERS/RESIDENTS. Received no hotline calls. Several area residents viewed airlifts of munitions. During airlift operations, residents had questions about final operations and Phase II. Corps of Engineers PAO was on hand to answer Phase II questions.

5. CIVIL AUTHORITIES. DC OEP and other city officials terminated operations effective 301200 Jan 93.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Site is standing down at 1500 for the weekend. All equipment is secured and will be safeguarded by the personnel remaining at the site. Cleaning of the pit area and filling in the excavations continues by contractor personnel. All munitions safely removed from site and secured at Ft. A.P. Hill for final disposition. Final shipment of liquid fill rounds expected to be safely stored at PBA by 1400 today.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

CF: CG, AMC
AMCOC (AMCCB)
MDW EOC
PM, NS, CMDA
TSD, US SS

TEU EOC
Comdt, CMLS
CBDA EOC
Dir, AMC SFA

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 011700 Feb 93

1. GENERAL. SRF Cdr briefed CSA on operations. Deputy SRF Cdr briefed Dr. Sanford Leffingwell, CDC, DHHS on site operations, sampling activities, analyses, and transition to Phase II. Detachments: A Co, 3rd Inf Regiment at 0800 and 67th Ordnance Det (EOD) at 1200.

2. OPERATIONS.

a. General. Site activity commenced 0745. Activity focused on equipment turn-in to MDW and other agencies providing support. Hazardous waste contractor departed site at 1630 with final 30 cubic yards of scrap metal and disposable personal protective equipment. Site secured at 1630.

b. Excavation site activities. The sewer connection in Pit 1 completed by the developer. Pits 2 and 3 filled to grade. Pit 4 filled to grade and resodded.

c. Status of munitions. No change.

d. Safety/Security. Metropolitan Police Department will continue to provide site security until all equipment is turned in.

e. Next 24 hours. Will complete equipment turn-in and site closure by 2 Feb. Will request HQDA approve Phase I termination and release of SRF Cdr and staff.

f. Future operations. Objective remains for all forces to depart site by 3 Feb 92.

g. Phase II operations. Reimbursement interviews continued today. A total of 45 interviews were conducted. Requested reimbursements from 29 Jan 93 total \$84.5K.

3. PUBLIC AFFAIRS. Responded to three media calls asking for updates/status of operation. Issued one media/community advisory to media outlets and community center updating number of munitions found.

4. HOMEOWNERS/RESIDENTS. Received five citizen hotline calls asking for information on upcoming meetings and Phase II operations.

5. CIVIL AUTHORITIES. DC Fire Department management inspected site and are satisfied with their portion of closure responsibility.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Site cleanup going well. Still expect to transition to Phase II on 3 Feb--No problems.


GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

CF: CG, AMC
AMCOC (AMCCB)
Comdt, CMLS
MDW EOC
CBDA EOC
TEU EOC
PM, NS, CMDA
Dir, AMC SFA
TSD, US SS

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP 021700 Feb 93

1. GENERAL. This is final SITREP for OPERATION SAFE REMOVAL, Phase I. Detachments: Technical Escort Unit (-) at 1430. SRF Cdr and supporting staff terminated operations and departed at 1930.

2. OPERATIONS.

a. General. Site activity commenced 0745. Remaining equipment returned to MDW and other supporting agencies. Work site cleared at 1430.

b. Excavation site activities. NA

c. Status of munitions. NA.

d. Safety/Security. NA

e. Next 24 hours. NA

f. Future operations. NA

g. Phase II operations. No change.

3. PUBLIC AFFAIRS. One media inquiry from Defense Superfund Clean-up Newsletter. Handled a total of 336 news media inquiries from 5 Jan to date: 134 television, 87 newspaper/magazine, 19 wire service, and five other. Granted 26 television and nine radios interviews.

4. HOMEOWNERS/RESIDENTS. SRF Cdr hosted the 17th and final town hall meeting. The citizen's hotline was officially transferred to the COE Phase II PAO at 1000. Total hotline calls answered from 11 Jan to date: 338.

5. CIVIL AUTHORITIES. Metropolitan Police Department released from site security responsibility.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. Completed all required actions for Phase I. Submitted Administrative Record to National Response Center and AOC today. Phase II is well underway.



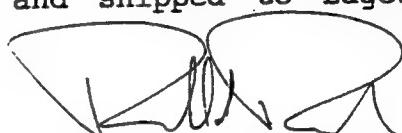
GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

CF: CG, AMC
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PM, NS, CMDA
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TSD, US SS

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: Spot Report, 291130 Jan 93

At approximately 1015, TEU personnel recovered a single 4.7" round, apparently intentionally concealed, on the second floor of the house under construction at the site of the original munitions recovery. Initial assessment indicates the round has no fuze or burster, but may have contained chemical fill. Round is being overpacked containerized, and shipped to Edgewood for further analysis.



RICHARD D. READ
Colonel, CM
Deputy Service Response Force
Commander

**SITUATION REPORTS
OPERATION HOME ALONE**

OPERATION: HOME ALONE

DTG: 160001 JAN 93

Weekend transition force is in place and functioning well. CPT Torrence, USATHAMA, called to notify EOC that Jim Arnold and Joe King will be in the area to conduct a drive thru prior to Thursday, 21 Jan 93. I informed him that they would not be allowed to cross the Traffic Control Points. They are only interested in seeing the general layout of the area. No phone calls or other significant activities to report.

**CPT ROSS
OIC**

OPERATION HOME ALONE

AS OF (DTG): 181200 (LOCAL) JAN 93

SUMMARY: At approximately 0800 18 Jan, CPT Torrence, Corps of Engineers, escorted personnel to the sight to begin taking magnetometer readings. Prior to the readings, Rob Westbrook, Miller Construction, disassembled the scaffolding around the pit area to clear the sight for the sensors. 1LT Ramirez contacted LTC Batt and Col Read to ensure that they were aware of the activity. Both confirmed that they knew this was to happen. Readings will be taken today and tomorrow from approximately 0800 to 1700 each day. Received three Civilian Hotline calls. Two were routine calls, the third call came from a Ms. Lorraine McDonald, (301) 656-0641, concerning the accessibility of Dalecarlia Parkway. She is receiving treatments at Sibley Hospital. SGT Harbor, NCOIC referred her concerns to Ray Aponte, AMC PAO. I called her at 1300 to insure she received a response. She was not at home so I left a message on the answering machine. Security operations with the 101st Chem and 3rd Inf continue to operate smoothly with no incidents to report.

CPT Ross
OIC

OPERATION SAFE REMOVAL

AS OF (DTG): 191200 (LOCAL) JAN 93

SUMMARY: At 1025 on the 18th the DC police removed the vehicle, but they left the patrolman in place at the 52nd Street and 52nd Court traffic control point. One of the government vans brought up from APG on Saturday was given to the patrolman and soldier at that point. Two calls from the Associated Press (A.P.) came in on the afternoon of the 18th. The A.P. was seeking additional information on the results on the excavation. They were referred to Jan Finegan. One phone call came over the "Citizen Hotline" from a Mrs. Beale, 363-3521. She wanted additional information on places to stay during the evacuation. Her call was referred to the AMC PAO representative. A Mr. Andy Jeffers, TexShield Co., called on the 18th trying to locate a Mr. Ben Comnock, PBA, reference chemical protective undergarments for the operation. Mr. Jeffers was given a local number in D.C. for Mr. Comnock but as of the 19th is still unable to make contact.

CPT Ross
OIC

OPERATION SAFE REMOVAL

AS OF (DTG): 201200 (LOCAL) JAN 93

SUMMARY: Representatives from EOD completed the magnatrometer readings around the site on the 19th. CPT Torrence predicts the results to be ready sometime on Wednesday, 20 Jan 93. Police support of the traffic control points was reduced to two. CPT Barrett was informed and the remaining police patrols are now located at the corner of 52nd Street and 52nd court and 52nd Street and Van Ness Street. Col Harrison, commander PBA, came to see the site on the afternoon of the 19th along with Mr. Comnock. He was escorted by myself to the site. Several "Citizen Hotline" calls were received concerning the evacuation procedures for Thursday. Also several calls dealt with concerns over reimbursement procedures for the inconvenience caused by the excavation. Those concerned about reimbursement were told that this would be discussed at the Thursday community meeting. Mail delivery was permitted around the site up to the "hotline." A Mr. Webb, Corps of Engineers, arrived this morning to begin taking pictures of the surrounding area.

CPT Ross
OIC

OPERATION: HOME ALONE STAFF DUTY INSTRUCTIONS

1. PHONE PROCEDURES: Answer the phone by stating, "OPERATIONS CENTER, state your name, MAY I HELP YOU.
 2. SECURITY PROCEDURES: SEE ANNEX A

D/3d Inf CPT Beech
101st Chem CO. CPT Ensor
 3. CIVILIAN HOTLINE: SEE ANNEX B
 4. MEDICAL EMERGENCY: SEE ANNEX C
 5. POSSE COMITATUS ACT: SEE ANNEX D
 6. APPROVED CONSTRUCTION ACTIVITIES: SEE ANNEX E
 7. IMPORTANT PHONE NUMBERS: SEE ANNEX F
 8. Maintain the DA 1594 Duty Log. Outgoing OIC will brief incoming OIC of significant activities. Persons wishing to speak directly to BG Friel will be told that he will return their call. Take the individual's name and number and include them in the duty log. Insure that CPT Ross includes them in the DAILY SITREP.
 9. In the event that BG Friel needs to be reached immediately call in order:

1LT Taran, Aide-de-Camp
Col Read, Deputy Commander
LTC Ellenberger

The SDO at CBDA can be reached at (410) 671-2148 if his assistance is required. If all else fails call BG Friel directly at

Operation Center Phone Numbers

General's Office - 282-0883 (STU III)

PAO 282-2773/2780

DUTY ROSTER

DATE	TIME	OIC/NCOIC
16 JAN	1200-0000	CPT Ross/SGT Harbor
17 JAN	0000-1200 1200-0000	1LT Ramirez/SSG Williams CPT Ross/SGT Premo
18 JAN	0000-1200 1200-0000	1LT Ramirez/SGT Harbor CPT Ross/SGT Williams
19 JAN	0000-1200 1200-0000	1LT Ramirez/SGT Premo CPT Ross/SGT Harbor
20 JAN	0000-1200 1200-0000	1LT Ramirez/SSG Williams CPT Ross/SGT Premo
21 JAN*	0000-1200	1LT Ramirez/SGT Harbor

*If required

ROOM LOCATION AND PHONE

LOCATION: U.S. POSTAL ACADEMY

NAME	ROOM	EXTENSION
CPT ROSS	A-109	5408
1LT RAMIREZ	A-107	5406
SSG WILLIAMS	A-108	5407
SGT HARBOR	A-106	5405
SGT PREMO	A-110	5409

MEMORANDUM FOR DAMO-ODO-CAT

SUBJECT: SRF Commander's SITREP, 161200 Jan 93

1. GENERAL. No site briefings given today. No additional attachments/detachments today.

2. OPERATIONS. The AMCCOM Flt Det UH-1 was on station for the shipment to APG-EA at 0820. Repacking operations of one Livens projector into an approved container was concluded at 0915. Hazardous waste contractors arrived on site at 0945 and departed with manifested shipment at 1300. Chase UH-1 arrived on station at 1015. Lift off was 1125 and arrived APG-EA at 1200. The munitions were secured in the Chemical Transfer Facility, ERDEC at 1235.

a. General. Site preparation commenced at 0730 with first entry monitoring. There was no evacuation today.

b. Excavation site activities. All activities centered on security and integrity of protective coverings over the pit and the spoils piles.

c. Status of munitions. No change

d. Site Safety/Security. All munitions removed are sealed, packaged and stored in barricaded, locked milvans. A system was established for the residents inside the restricted area of the site that limits access to them, their guests, as well as the building contractor and Phase II personnel. This will control access to the pit area to only those personnel who have both a need to be there and who have been briefed by the SRF Eq.

e. Next 24 hours. ERDEC will continue to manufacture SRC's according to the manufacturing schedule.

f. Future operations. Emergency operations center has been relocated to CBDA Hq, Edgewood effective 1400. Advance party will return to Spring Valley site on 20 Jan 93. Site will be fully operational at 210730 Jan 93.

g. Phase II operations. No change.

3. PUBLIC AFFAIRS. Prepared SOPs for citizen hotline for soldiers manning phones during five day break. Provided information for soldiers who will accompany police on courtesy patrols.

4. HOMEOWNERS/RESIDENTS. Two residents adjacent to the site who were permanently evacuated on the recommendation of the SRF Commander were given a tour of the site by the SRF Commander and were allowed into their homes to retrieve personal items. Received two queries on why fire trucks were in area today.

Information updates were distributed door-to-door on status of operations during five day break.

5. CIVIL AUTHORITIES. The Director, D.C Office of Emergency Preparedness, expressed concern that several elements of the District response forces have expended significant funds to support Operations Safe Removal, and they need some assurance that the Army will reimburse expenses. Recommend TJAG and the ASA (IL&E) assist.

6. ISSUES/REQUIREMENTS. None.

7. COMMANDER'S ASSESSMENT. The site is buttoned-up and safe. The task force we put on site today is trained and capable of maintaining safety and security while I am gone. I'm moving the center of gravity to Edgewood today. Will reconstitute and bring back a team beginning Wednesday night to see us through the end. I've notified the National Response Center (copy attached) of our status. The local residents are supportive of our plans for the next five days.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force
Commander

CF: CG, AMC
AMC EOC (AMCCB)
MDW EOC
CBDA EOC
PM Non-Stockpile, CMDA
Secret Service, Tech Security Div

ANNEX A

OPERATION SAFE REMOVAL
GUARD INSTRUCTIONS FOR THE PERIOD 161200 JAN 93 - 210800 JAN 93.

1. OPERATIONS ON SITE WILL BE SUSPENDED AND VEHICLES, EQUIPMENT, AND MATERIEL WILL BE CONSOLIDATED AND SECURED. ACCESS TO THE AREA WILL BE CONTROLLED.

2. SECURITY POSTS WILL BE ESTABLISHED AT:

- A. 52d STREET AT VAN NESS STREET.
 - 1. MANNED BY A DPD PATROL AND A MILITARY LIAISON.
 - 2. DENY ALL ACCESS TO THE AREA BY ANY MODE OF TRAVEL.
 - 3. OBSERVE THE OPEN LAND AREA FROM DELACARLIA PARKWAY TO THE WORK SITE FOR PEDESTRIAN TRAFFIC.

- B. 52d STREET AT 52d COURT.
 - 1. MANNED BY A DPD PATROL AND A MILITARY LIAISON.
 - 2. DENY ALL ACCESS TO THE AREA BY ANY MODE OF TRAVEL, EXCEPT THE FOLLOWING PERSONS;
 - Dr AND MRS PATRICK KILDEA
 - Dr AND MRS RIZIK
 - MILLER CONSTRUCTION WITH VEHICLE PASS (BLUE)
 - 3. OBSERVE THE OPEN LAND AREA FROM WARREN PLACE TO 52d STREET FOR PEDESTRIAN TRAFFIC.

- C. WARREN STREET AT WARREN PLACE.
 - 1. MANNED BY A DPD PATROL AND A MILITARY LIAISON.
 - 2. ALLOW ACCESS ONLY TO VEHICLES WITH RESIDENT/GUEST TAGS (GREEN/ORANGE).
 - 3. BE PREPARED TO MOVE TO WARREN STREET AT 50th STREET.

- D. 52d COURT.
 - 1. MANNED BY TWO MILITARY PERSONNEL.
 - 2. PROVIDE 24 HOUR PHYSICAL SECURITY AT SITE.

3. THE MILITARY LIAISON WILL ACCOMPANY THE DPD POLICE OFFICER ON DUTY. ANY INTERACTION WITH THE PUBLIC WILL OCCUR WITH THE DPD POLICE OFFICER. IF THE POLICE OFFICER TURNS TO THE LIAISON FOR ASSISTANCE, THE LIAISON WILL SIMPLY PROVIDE THE NUMBER AND NAME OF THE OFFICER ON DUTY AT THE OPERATIONS CENTER AND CONTACT THE OPERATIONS CENTER TO INFORM THEM OF WHAT HAPPENED.

AT NO TIME WILL THE LIAISON ENGAGE IN ANY LAW ENFORCEMENT ACTIVITIES. THIS INCLUDES; SEARCH OR SEIZURE (PERSONS OR PROPERTY), ARREST, STOP AND FRISK, SURVEILLANCE, PURSUIT, AND FUNCTIONING AS AN INFORMANT, UNDERCOVER AGENT, INVESTIGATOR, OR INTERROGATOR.

4. ALL POSTS WILL MAINTAIN COMMUNICATIONS WITH THE OPERATIONS CENTER (5015 WARREN STREET). PERSONNEL ENTERING THE AREA WITHOUT A RESIDENT/GUEST TAG WILL BE REFERRED TO THE OPERATIONS CENTER AT 5015 WARREN STREET TO COORDINATE. ANY POST THAT OBSERVES SUSPICIOUS ACTIVITIES WILL NOTIFY THE OPERATIONS CENTER WHO WILL NOTIFY THE DPD POLICE.

ANNEX A

5. AT ANY TIME THE LIAISON FEELS UNCOMFORTABLE WITH THE SITUATION AT THE POST, HE WILL CONTACT THE OPERATIONS CENTER. AT NO TIME WILL OTHER MILITARY PERSONNEL RESPOND TO A SITUATION AT A SECURITY POST, THIS WILL BE DONE BY THE DPD POLICE.

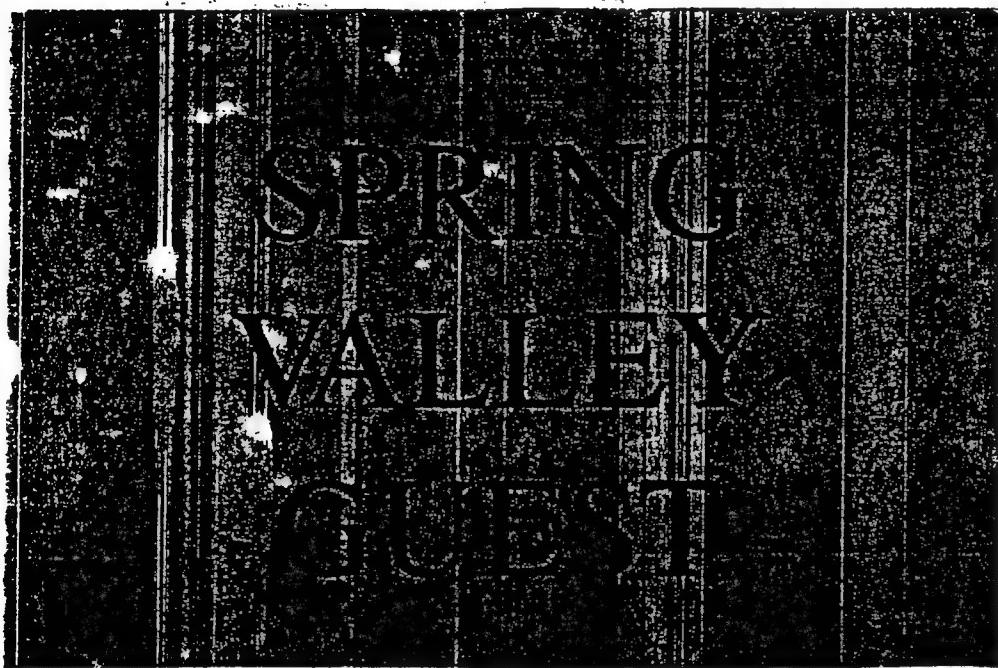
6. NEWS MEDIA SHOULD BE REFERED TO THE ON-CALL SRF PAO:

MS. JAN FINEGAN (HOME)
703 407 9166 (MOBILE)
(PAGER)

7. POC THESE INSTRUCTIONS IS CPT BARRETT, SRF # 282-0634, APG # 410-671-2842, HOME #

BARRETT

SPRING VALLEY RESIDENT



**MILLER
CONSTRUCTION
WORK ACCESS**

PHONE NUMBERS

1) Jan Finegan - AMC PAO

Work: 703-274-8010
Home:
Beeper:

2) Ray Aponte - AMC PAO

Work: 703-274-8010
Home:
Beeper:

3) Don Kirchoffner - AMC PA

Work: 703-274-8010
Home:
Beeper:

4) MAJ Rick Thomas - DA PAO

Work: 703-697-7589
Home:

5) Jim Allingham - CBDA PAO

Work: 410-671-4345
Home:

6) Mickey Morales - CBDA PAO

Work: 410-671-4345
Home:

ANNEX B

STANDARD OPERATING PROCEDURE FOR CITIZEN HOT LINE

- 1. Answer the telephone with: Operation Safe Removal Citizen Hotline this is (Name) may I help you sir or ma'am?**
- 2. Explain to the person that you are the SDO.**
- 3. If you can answer the question, do so.**
- 4. If not, take the question in writing. Take the individual's name and phone number. Tell them that you will have someone get back to them as soon as possible.**
- 5. Call one of the phone numbers on the Public Affairs phone list.**
- 6. Return the person's call and log in the call on DA Form 1594.**

Service Response Force

Public Affairs Office

Information Updat

COMMUNITY ADVISORY

January 15, 1993

93-10

Evacuation of the residents of Spring Valley will be suspended from Saturday, January 16th through Wednesday, January 20th. Operations at the clean-up site will continue; however, excavation of the pit will cease during this time period. Security measures have been coordinated with the District of Columbia Police Department and the U.S. Army. The site will be secured throughout the break, and three police road blocks will remain in addition to one unmanned barricade.

The unmanned barricade will be placed at the intersection of Delacarlia Parkway and Warren Place. A police officer and a military liaison will be posted at: Van Ness and 52nd Street; 52nd Street just before the cul-de-sac of the site; and Warren Street at the intersection of Warren Place. There will be no access at either 52nd Street location, while access at Warren Street will be limited to residents and guests with passes. Passes will be distributed at the town hall meeting, Friday, January 15th and can be obtained at the Control Center for Operation Safe Removal located at 5015 Warren Street.

page 2

The first day of the resumed evacuation will be Thursday, January 21st. Hours of the evacuation have been modified according to residents' requests and will change to 8 A.M. through 6 P.M. The citizens' hotline will remain open through the break. If you have any concerns, the hotline number is (202) 282-2773.

Service Response Force

Public Affairs Office

Information Update

93-12

January 15, 1993

The Army began removing World War I munitions Thursday from the Spring Valley cleanup site.

Two helicopter airlifts transported a total of 17 suspected liquid filled ammunition rounds to Andrews Air Force Base enroute to their final storage destination at Pine Bluff Arsenal, Ark.

Twenty five more rounds were recovered during continued excavation Thursday and Friday. Liquid filled rounds will be safely packaged and prepared for shipment. Flights will resume when we have a sufficient number of liquid rounds. The solid filled or high explosive rounds are properly stored awaiting shipment to another military installation.

Recovered munitions remaining on site as of close of business Friday, January 15, are:

liquid filled	7
solid filled	56
total	63

ANNEX C

6. MEDICAL SUPPORT 16 - 20 JANUARY 1993

a. Concept of Operations.

(1) Recovery operations will cease at the close of business 15 January 1993. Activities on 16 January will be limited to equipment maintenance and general cleaning of the area of operations.

(2) About 20 military personnel will be on-site to support the security mission. These personnel will work with the D.C. police.

b. Emergency Medical Support.

(1) The EMS system can be accessed through either a police radio or by dialing 911 on a commercial telephone. Their response time from the nearest fire station is less than five minutes.

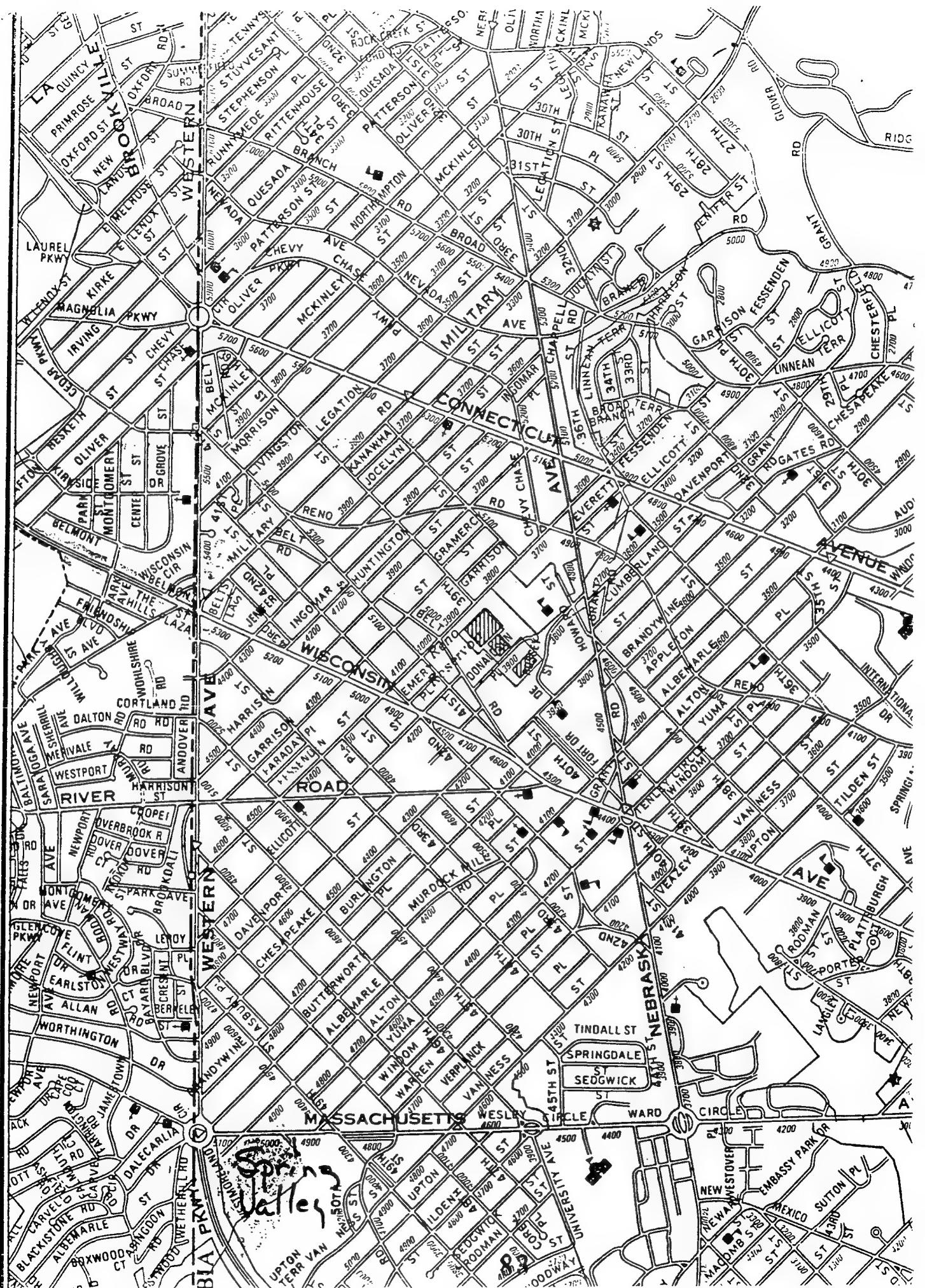
(2) Military personnel will be transported to Walter Reed Army Medical Center. The EMS personnel may elect to utilize another facility if the situation requires immediate care.

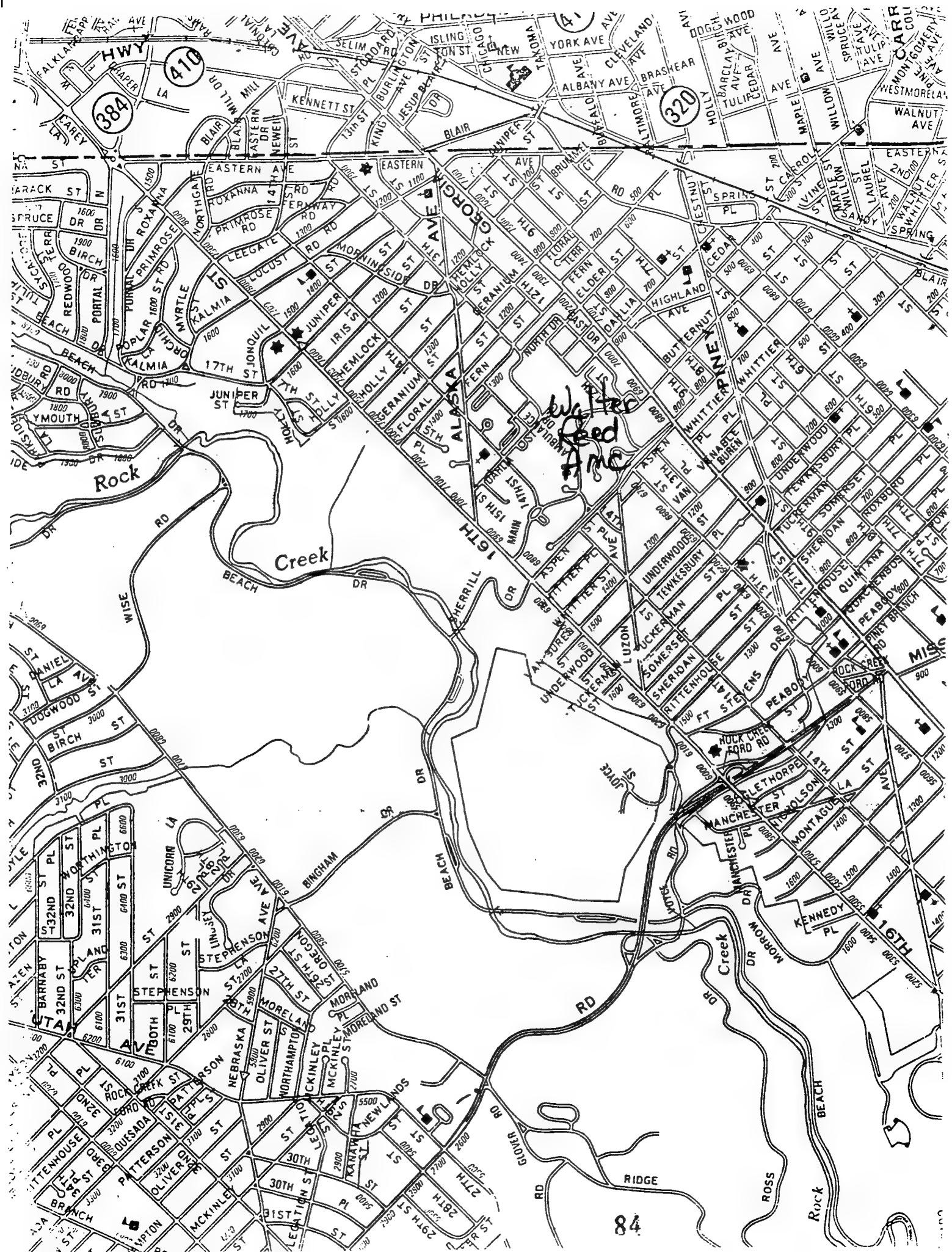
c. Routine Medical Care.

(1) Non-urgent medical care will also be at Walter Reed Army Medical Center emergency department.

(2) A map of this area to include Walter Reed Army Medical Center is attached.

ANNEX C





ANNEX D

FACT SHEET

SUBJECT: The Posse Comitatus Act

1. The Posse Comitatus Act is a federal statute which provides for criminal penalties for members of the federal armed forces who perform civilian law enforcement functions. The Act prohibits soldiers and DOD civilians who are under the direct command and control of a military officer from enforcing Federal, state, or local law. The following uses of military personnel are prohibited:

- a. Search or seizure of persons and their property.
- b. Arrest or stop and frisk.
- c. Surveillance or pursuit.
- d. Functioning as an informant, undercover agent, law enforcement investigator or interrogator.

2. Certain types of assistance may be provided to civilian law enforcement authorities. For instance, soldiers may:

- a. Train civilian law enforcement personnel in the use of equipment and provide expert advice; and
- b. Serve as a liaison with civilian law enforcement authorities. Liaisons are cautioned to refrain from engaging in any law enforcement activity. Their purpose is to instruct civilian police on our mission and procedures and do necessary coordination. Any action that could create even the appearance of engaging in law enforcement activity should be avoided.

3. The prohibition of the Posse Comitatus Act does not apply to the following individuals:

- a. A member of the national guard when not in federal service.
- b. A soldier when off-duty and in a private capacity. This exception does not apply to any soldier who is part of the SRF and in the vicinity of the site, regardless of the time of day.

4. Emergencies.

- a. Posse Comitatus does not prohibit soldiers from taking appropriate action to defend themselves or prevent the loss or wanton destruction of Federal property. This situation only exists when life and property are seriously threatened and local authorities are unable to respond or control the situation. Once the immediate threat is gone, the follow on response is the responsibility of civilian law enforcement authorities.

b. Except where life or Federal property is immediately threatened, let civilian police authorities respond and enforce the law.

5. Conclusion. Personnel are reminded that your mission does not include augmenting the civilian police authorities. Do not assist them in arrests, searches, and other related activities.

ANNEX E

PLOT	ADDRESS	CONSTRUCTION WORK TO BE PERFORMED	REMARKS
894		Carpenters, painters & bricklayers Sprinkler system same excavation	Digging of 1 foot
893		Carpenters, electricians, plumbers & bricklayers (interior & exterior)	
995		None	
932		None	
933		None	
934		None	
941		Dry wall all rooms excluding garage	Secure garage
929		Drywall, flooring, trim, cabinets all rooms excluding garage, carpenters exterior dect, deliver trim on Saturday	Secure garage
928		Plumber & electrician	All inside
927		Carpenters, painters, plumbers, interior & exterior. Drainage system outside to include some excavation.	Digging of 1 foot
926		Drainage system to include some excavation	Digging of 1 foot
914		Bricklayers, carpenters, plumbers, & electrician (interior & exterior)	
913		Form & pour foundation walls	
967		Plumbers ground works inside foundation same excavation; Carpenters frame house	Digging; Check airfld Thursday

REVIEWED BY CPT BARRETT, COL BETH, MR. WESTBROOK.
APPROVED AS STATED ABOVE.





ANNEX F

IMPORTANT PHONE NUMBERS

CPT CHRIS BARRETT (OPS)

(HOME)
(MOBILE)
(PAGER)

DC POLICE

MILLER CONSTRUCTION
ROB WESTBROOK

(OFFICE)
(HOME)
(PAGER)

NATIONAL EMERGENCY COORDINATION CENTER
CALL FOR PROBLEMS WITH FEMA COMMUNICATIONS EQUIPMENT (24 HOURS)

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 566 1600 (0800-2400)

ARMY OPERATIONS CENTER (AOC)
LTC COLEMAN

703 693 9180

(HOME)
(BEEPER)

67th ORD DET (EOD)
16-17 JAN SSG OUELLETTE
SPC HIPS Kind
18-20 JAN SSG OUELLETTE
SSG SKIPPER
SSG SIMMONS

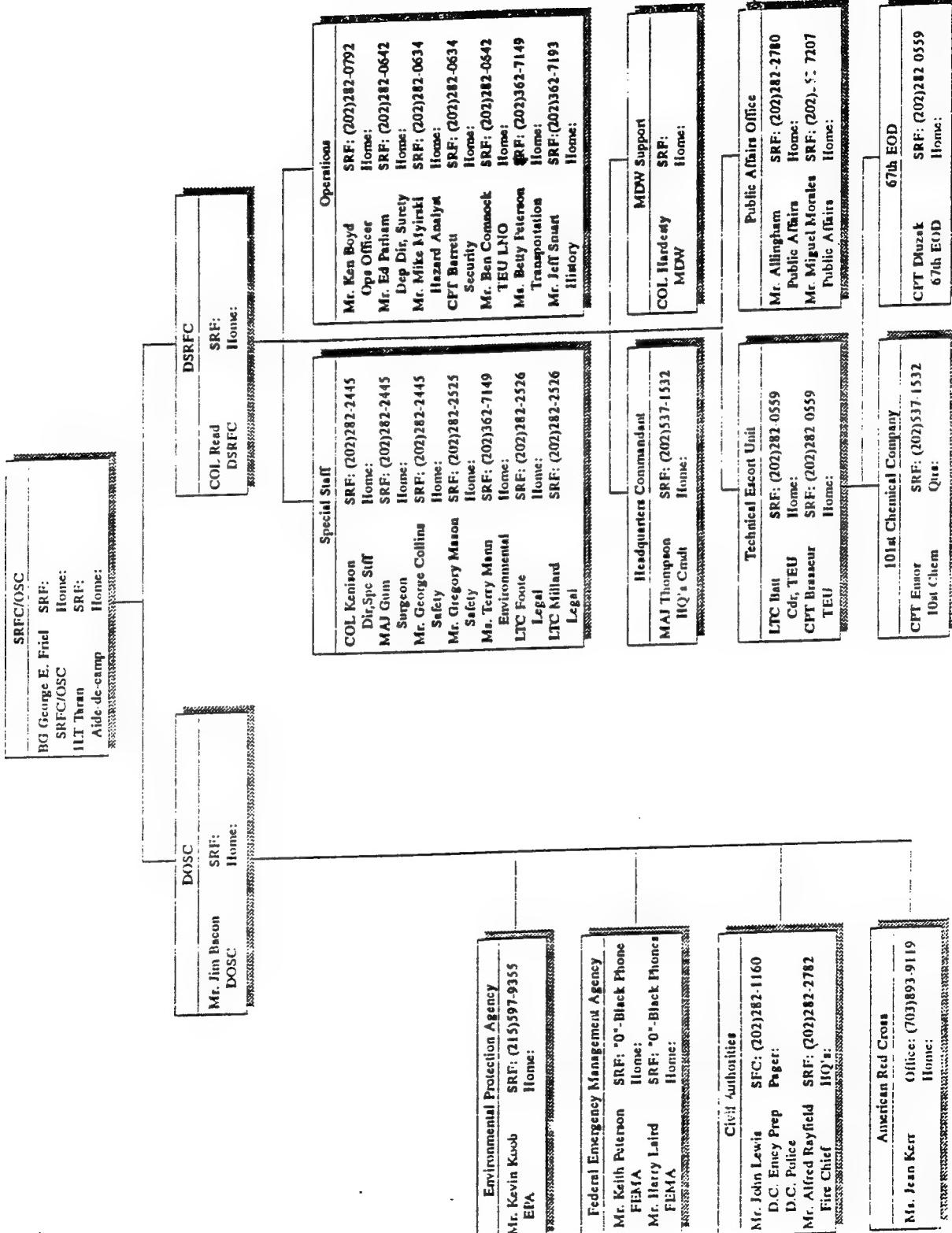
475 1988 (24 HOURS)
(HOME)
(HOME)
(HOME)
(HOME)
(HOME)

PAO
MS JAN FINEGAN

(HOME)
(MOBILE)

D/3d IN

CPT Torrence, Corps of Engineers
(703) 471-1973 pager:



OPERATION SAFE REMOVAL
Black Telephone System

As of: 1300 EST 14 JAN 93

Site Commander Office

2541 - 1LT Taran
2543 - COL Read
2545 - Mr Bacon

Headquarters Commandant

2507 - Maj Thompson

Operations Center - 2536/2537

Public Affairs - 2529/2530/2531/2532

Jim Allingham
LTC Arnie Laidig
Jan Finegan
Ken Crawford
Mickey Morales
Kim Rohland
John Yaquaint
Terri White

**** Incoming numbers to Public Affairs, provide one of the following:**

News Media - 202-282-2780
Citizen Hotline - 202-282-2773

Special Staff - 2524/2525/2625

COL Kenison
George Collins - Safety
LTC Warren Foote - Legal
LTC Mike Millard - Legal
MAJ Gum - Medical
Kevin Koob - EPA
Terry Mann

Historical - 2505

Transportation - 2506

D.C. Government - 2513/2514

D.C. Fire - 2512

Ordinance ID Shack - 2565

MIA - 2510/2511 **MKV** - 2587

ICMA Telephone Switch - 2501

**** Incoming Telephone Number** - 800-331-1238

**** In House** - "0" for the Operator

CORRESPONDENCE

7 JAN 93 0245 Y
1 CY READING FILE
ACTION: AMSCB-CM

IMMEDIATE

DATE: 006
TIME: 2021

0145

OTTUZOVW RULNCAR5062 0061850-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR5015 REROUTE OF RUEADWD5062 0061802
RUEANEW T CDR USA CBDA APG MD
D 061739Z JAN 93
FM DA WASHINGTON DC //DAMO-ODO-CAT//
TO RUKLDAR/HQ AMC ALEXANDRIA VA //AMCLG-CS/AMCCB//
RUKGNDW/HQ USA MDW FT MCNAIR WASHINGTON DC //ANOP-OP//
INFO RUEPABE/CDR DESCOM CHAMBERSBURG PA //AMSDS-CG//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CG//
RULNEAA/CDR USA CBDA APG MD //AMSCB-CG//
RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIC-CD//
BT

UNCLAS F O U O

SUBJ: CHEMICAL EVENT WARNING ORDER

- A. AR 50-6, CHEMICAL SURETY WITH INTERIM CHANGE I01.
 - B. DA PAM 50-6, CHEMICAL ACCIDENT OR INCIDENT RESPONSE AND ASSISTANCE (CAIRA) OPERATIONS.
1. ON 5 JAN, MDW EOC WAS ALERTED BY WASHINGTON DC CITY OFFICIALS THAT A CONSTRUCTION CREW WORKING AT 511 52D COURT UNCOVERED WHAT APPEARED TO BE A MUNITIONS BURIAL SITE. THE 67TH EOD RESPONDED AND REPORTED SUSPECTED CHEMICAL FILLED MUNITIONS. THE TECH ESCORT UNIT (TEU) FROM ABERDEEN PROVING GROUND WAS REQUESTED AND RESPONDED TO THE SCENE AT 1900 5 JAN. ALTHOUGH ONLY NEGATIVE READINGS WERE REGISTERED USING

PAGE 02 RUEADWD5062 UNCLAS

CAMS DETECTORS, TEU SUSPECTS THAT SOME ROUNDS MAY CONTAIN CHEMICAL AGENT. CONFIRMATION USING MASS SPECTROSCOPY IS ONGOING BY TEU.
2. SINCE DISCOVERY, MDW REMAINS IN COMMAND OF US FORCES AT THE SITE AND COORDINATES WITH LOCAL OFFICIALS TO ELIMINATE THE HAZARDS. REQUESTS FOR AUGMENTATION OR SUPPORT SHOULD BE DIRECTED TO THE AOC.
3. UNTIL CONFIRMATION THAT CHEMICAL SURETY MATERIAL IS PRESENT, CG MDW WILL PROVIDE INITIAL RESPONSE FORCE COMMANDER AND NECESSARY RESPONSE FORCES AT THE SITE TO DETERMINE THE NATURE OF ALL HAZARDS AND DEVELOP A PLAN TO REMOVE THE HAZARDOUS MATERIAL. IF CHEMICAL SURETY MATERIAL IS DISCOVERED, AMC WILL RECOMMEND TO DA A SERVICE RESPONSE FORCE COMMANDER WHO, WHEN APPOINTED BY DA, WILL DEPLOY WITH HIS RESPONSE FORCE TO ASSUME CONTROL OF OPERATIONS AT THE SITE. MDW WILL SUPPORT THE SRF CDR AS REQUIRED.

IMMEDIATE

PAGE: 1

IMMEDIATE

PAGE: 2

4. POC, DAMO-ODO-CAT, IS LTC COLEMAN, (703) 693-4627.

BT

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IMMEDIATE

PAGE: 2

7 JAN 93 0258 Y
1 CY READING FILE
ACTION: AMSCB-CM

IMMEDIATE

DATE: 007
TIME: 1306

0258

OTTUZOWW RULNCARS247 0062123-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR5053 REROUTE OF RUEADWD5247 0061923
RUEANEW T CDR USA CBDA APG MD

O 061905Z JAN 93

FM DA WASHINGTON DC //DAMO-ODO-CAT//
TO RUKLDAR/HQ AMC ALEXANDRIA VA //AMCLG-CS/AMCCB//
INFO RUKGNDW/HQ US ARMY MDW FT MCNAIR WASHINGTON DC //ANOP-OP//
RUEPABE/CDRDESCOM CHAMBERSBURG PA //AMSDS-CG//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CG//
RULNEAA/CDR USA CBDA APG MD //AMSCB-CG//

RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIC-CD//

BT

UNCLAS

SUBJ: CHEMICAL EVENT TASKING ORDER

- A. DA MSG DTG 061739Z JAN93, SUBJ: CHEMICAL EVENT WARNING ORDER
1. AMC IS TASKED TO COORDINATE TRANSPORTATION OF RECOVERED SUSPECTED
CHEMICAL FILLED MUNITIONS FROM WASHINGTON, DC TO A CHEMICAL SURETY
SITE UNDER AMC CONTROL.
2. AMC WILL
A. COORDINATE WITH MDW AND APPROPRIATE STATE REGULATORS TO
EFFECT THE MOVE,
B. PROVIDE TECHNICAL ESCORT,
C. PROVIDE DA WITH CONCEPT OF OPERATION PRIOR TO EXECUTION.

PAGE 02 RUEADWD5247 UNCLAS

3. POC, DAMO-ODO-CAT, IS LTC COLEMAN, (703)-697-1033.

BT

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NNNN

IMMEDIATE

PAGE: 1

✓
7 JAN 93 0255 Y
1 CY READING FILE
ACTION: AMSCB-CM

IMMEDIATE

DATE: 007
TIME: 1307

0255

OTTUZYUW RUKLDAR6085 0070027-UUUU--RUEANEW.

ZNR UUUUU
O P 061739Z JAN 93
FM CDRAMC ALEXANDRIA VA //AMCOG-LG/AMCCB//
TO RUEADWD/DA WASHINGTON DC //DAMO-ODO-CAT//
INFO RUEPABE/CDRDESCOM CHAMBERSBURG PA //AMSDS-CG//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CG//
RUEANEW/CDR CBDA EDGEWOOD ARSENAL MD //AMSCB-CG//
RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIC-CD//

BT

UNCLAS

SUBJ CHEMICAL EVENT WARNING ORDER

- A. MSG DA DAMO-ODO-CAT 061739Z JAN 93 SAB.
- B. AR 50-6 CHEMICAL SURETY WITH INTERIM CHANGE 101.
- C. DA PAM 50-6 CHEMICAL ACCIDENT OR INCIDENT RESPONSE AND ASSISTANCE (CAIRA) OPERATIONS 17 MAY 91.
- D. MSG DA DAMO-ODO-CAT SUBJ: CHEMICAL TASKING ORDER.
 - 1. PER PARA 3 OF REF A RECOMMEND BG GEORGE FRIEL, CG, USA CBDA, BE DESIGNATED SERVICE RESPONSE FORCE COMMANDER (SRFC).
 - 2. RECOMMEND IN ADDITION TO MDW THAT USACMDA PROVIDE SUPPORT TO THE SRFC.
 - 3. REQUEST DETERMINATION OF WHETHER THE SRFC WILL BE DESIGNATED FEDERAL ON-SCENE @@@@. LONG-TERM MISSION OF THIS POSITION MAY BETTER WARRANT EPA AS INCUMBENT.
 - 4. PER REF D ABOVE, AMC PERCEIVES THIS TO BE A TWO PHASE

PAGE 02 RUKLDAR6085 UNCLAS

OPERATION. PHASE I IS MOVEMENT OF SUSPECT CSM TO CHEMICAL SURETY INSTALLATION. THIS PHASE INCLUDES PACKAGING, MOVEMENT FROM SITE TO ANDREWS AFB, TRANSLADING TO C23 AND MOVEMENT TO PINE BLUFF ARSENAL. PHASE II IS SURVEY OF SITE TO DETERMINE IF ANY OTHER HAZARDOUS MATERIEL IS PRESENT. PHASE II IS A COE MISSION PER DEFENSE ENVIRONMENTAL RESTORATION PROGRAM (DERP).

BT

#6085 ..

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IMMEDIATE

PAGE: 1

7 JAN 93 0257 Y
1 CY READING FILE
ACTION: AMSCB-CM

IMMEDIATE

DATE: 007
TIME: 1306

020 7

OTTUZYUW RUKLDAR6083 0070019-UUUU--RUEANEW.
ZNR UUUUU
O P 062339Z JAN 93
FM CDRAMC ALEXANDRIA VA //AMCOC-LG/AMCCB//
TO RUEANEW/CDR CBDA EDGEWOOD ARSENAL MD //AMSCB-CG//
INFO RUEPABE/CDRDESCOM CHAMBERSBURG PA //AMSDS-CG//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CG//
RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIC-CD//
BT

UNCLAS

OPERATION RESTORE HOPE

SUBJ CHEMICAL EVENT WARNING ORDER

- A. MSG CDRAMC AMCOC-LG 062300Z JAN 93 SAB.
- B. MSG DA DAMO-ODO-CAT 061739Z JAN 93 SAB.
1. BE PREPARED TO ACT AS SERVICE RESPONSE FORCE COMMANDER (SRFC) UP OF AR 50-6. APPOINTMENT MESSAGE WILL BE ISSUED BY DA.
2. CONDUCT PLANNING BASED ON CONCEPT OF OPERATION IN PARA 4, REF A AND REF B.
3. THIS HQ REQUESTS YOUR OPLAN FOR EXECUTION OF CONCEPT OF OPERATION AS SOON AS AVAILABLE.

BT

#6083
NNNN

IMMEDIATE

PAGE: 1

MG WILSON - Recommend that the situation at the former Camp American University not be declared a chemical event unless there is a confirmed release of chemical warfare agent. This will preclude the necessity to activate the Service Response Force (SRF). MDW can continue to provide the On-Scene Commander and Technical Escort Unit (TEU) the technical support and movement support. The munitions, once rendered safe and properly over-packed by TEU, can be moved without activating the SRF even if declared suspect chemical surety material. A helicopter and trained flight crew are enroute from Dover, NJ to support movement from the site to Andrews AFB. A C23 and trained flight crew are due in 1200, 7 Jan 93, at Andrews AFB from Rock Island to support movement to Pine Bluff Arsenal. The helicopter/C23 will be required if the munitions are declared suspect chemical surety material.

If AMC is tasked to assume on-scene command but a chemical event is not declared, then BG Friel (currently serving on a board at the Hoffman Building) could be the commander either operating on-site or out of the Hoffman Building with COL Read or COL Nakai on-site.

If the situation is declared a chemical event, the the SRF would be activated and MG Benchoff with supporting personnel would be brought on-site. BG Friel is on a board at the Hoffman Building and could be on-site in 10-20 minutes if needed and released from the board.

M. Parker


IMMEDIATE

DATE: 007
TIME: 1810

0321

7 January 93(0321)
1 Cy Reading File
ACTION: AMSCB-CG
INFO: AMSCB-CM

OTTUZOVW RULNCAR6934 0071517-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR5183 REROUTE OF RUEADWD6934 0071504
RUEANEW T CDR CBDA APG MD
O 071423Z JAN 93
FM DA WASHINGTON DC//DAMO-ZA//
TO RUKLDAR/CDR AMC ALEXANDRIA VA //AMCCG/AMCOC-LG/AMCCB//
INFO RUKGNDW/HQ USARMY MDW FT MCNAIR WASHINGTON DC //ANOP-OP//
RUEPABE/CDRDESCOM CHAMBERSBURG PA //AMSDS-CG//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CG//
RULNEAA/CDR CBDA APG MD //AMSCB-CG//
RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIC-CD//

BT

UNCLAS

SUBJ: APPOINTMENT AS ON SCENE COMMANDER (OSC)
IAW AR 50-6, BG GEORGE E. FRIEL, CDR, U.S. ARMY CHEMICAL BIOLOGICAL
DEFENSE AGENCY, WILL ASSUME CONTROL OF THE IRF AND IS APPOINTED AS
FEDERAL
DEFENSE AGENCY, WILL ASSUME CONTROL OF THE IRF AND IS APPOINTED AS
FEDERAL ON SCENE COORDINATOR/RESPONSE FORCE COMMANDER TO RESPOND TO A
CHEMICAL ACCIDENT/INCIDENT VICINITY WASHINGTON, D.C. EFFECTIVE 071200
(LOCAL) JAN 93.

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PAGE: 1

DON KIRCHOFNER

JAN 07 '93 13:40 R 2110 T1

H.1

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01 02 071528Z JAN 93 00 00 UUUU

0071135

CDR AMC ALEXANDRIA VA //AMCLG-SC//

CDR CBDA APG MD //AMSCB-CG//

INFO HQ USARMY MDW FORT McNAIR WASHDC //ANOP-OP//

CDR DESCOM CHAMBERSBURG PA //AMSDS-CG//

CDR AMCCOM ROCK ISLAND IL //AMSMC-CG//

CDR TECOM APG MD //AMSTE-CG//

UNCLAS

SUBJ: DESIGNATION OF SERVICE RESPONSE FORCE COMMANDER/ON SCENE

COORDINATOR

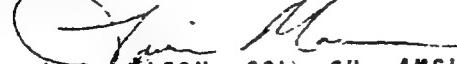
A. HQDA 071423Z JAN 93

B. HQAMC, 062339Z JAN 93.

1. CONFIRMING REF B, UNDER THE PROVISIONS OF AR 30-6, AND REF A,
BG GEORGE E. FRIEL IS HEREBY DESIGNATED SERVICE RESPONSE
COMMANDER/ON SCENE COORDINATOR RESPONSIBLE FOR ALL FORCES AND
OPERATIONS AT THE SCENE OF THE EVENT WHICH OCCURRED AT
WASHINGTON, DC, NW, ON OR ABOUT 5 JAN 93 INVOLVING SUSPECT
CHEMICAL SURETY MATERIEL.

2. YOU WILL PROCEED IMMEDIATELY TO THE SCENE AND ASSUME
OPERATIONAL CONTROL OF ALL RESPONSE FORCES.

MACK TRUSLOW
LOG MGT SPEC, AMCLG-SC, 44806


L.G. MASON, COL, CH, AMCLG-SC

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3. YOU ARE RESPONSIBLE DIRECTLY TO HQDA.
4. YOU ARE AUTHORIZED DIRECT CONTACT WITH ANY ELEMENT OF THIS COMMAND TO SECURE SUPPORT AND ASSISTANCE NECESSARY TO CARRY OUT YOUR RESPONSIBILITIES IN ACCORDANCE WITH REFERENCES ABOVE AND AR 50-6.
5. YOU ARE AUTHORIZED DIRECT COMMUNICATION WITH CONUS COMMANDS AND OTHER ACTIVITIES INVOLVED IN OPERATIONS PERTAINING TO YOUR ASSIGNMENT. YOU WILL, HOWEVER, FOLLOW DIRECTIVES WHICH HAVE OR MAY BE ISSUED PERTAINING TO THE CHANNELING OF CERTAIN ACTIONS THROUGH THE DEPARTMENT OF THE ARMY.
6. THE ARMY OPERATIONS CENTER, DSN 223-4827, CML 703/693-4827 WILL SERVE AS THE POINT OF CONTACT AND LIAISON OFFICE FOR YOU AT HQDA.

MACK TRUSLOW
LOG MGT SPEC, AMCLG-SC, 44806

L.G. MASON, COL, CH, AMCLG-SC

UNCLASSIFIED

HQ CBDA
AFG, MD
7 Jan 93

OPERATION PLAN XX XXX

Time Zone Used Throughout the Plan: ROMEO

Task Organization: Annex A (Task Organization)

1. SITUATION.

a. On 5 January 1993, work crews discovered abandoned munitions at a construction site in Washington, D.C., in the 5200 block of 52nd Court NW. (This area is in a triangle formed by Massachusetts Avenue, Van Ness Street, and Dalecarlia Parkway, near American University.)

b. On or about 05 1700 Jan 93, AMC HQ authorized Cdr, CBDA to dispatch elements of the Technical Escort Unit (TEU). TEU responded and provided an officer in charge (OIC), EOD assets, and other support.

c. On or about 07 0900 Jan 93, AMC directed the Cdr, CBDA to assume duties as Service Response Force Commander (SRFC) and Federal On-Scene Coordinator to coordinate all response and remediation activities.

d. Friendly Forces.

(1) HQ, AMCCOM: aviation support to the SRFC.

(2) FORSCOM Explosive Ordnance Disposal

(3) MDW: Administrative, logistical, and security support, as required.

(4) USACMDA: Non-stockpile support.

e. Attachments and Detachments. Annex A (Task Organization).

2. MISSION. SRFC will mitigate hazards on site, protect the public, and develop a plan for the final disposition of all munitions and associated materials found. When the overall situation is clearly no longer an emergency, the SRFC will pass control of the event to the Army Corps of Engineers (COE) for final resolution.

3. EXECUTION.

a. Concept of Operation. Annex C (Operations).

(1) Reference: AMC Chemical Service Response Force Commander's Emergency Response Plan (AMC CSRFCERP)

-OPERATION ORDER 09-01-

(2) The Commander, CBDA as the SRFC/OSC will select a personal and SRF staff, and deploy to the incident site by the most expeditious means practicable.

(3) The priorities for response are:

- (a) Protect the health and safety of the public.
- (b) Protect the environment.
- (c) Render-safe of munitions, as required.
- (d) Characterization of the hazard, including filler of munition.
- (e) Appropriate packaging of suspect CSM filled munitions.
- (f) Movement of packaged munitions to the Andrews AFB (AAFB).
- (g) Transloading of packaged munitions to C23 aircraft.
- (h) Escort of packaged munitions to final destination.

(4) HQ, AMC (AMCCB) in concert with the CBDA Plans and Contingency Operations Division will:

- (a) Arrange for fixed wing aircraft.
- (b) Provide required coordination with MDW and final destination.
- (c) Prepare and submit required REPSHIP reports.

(5) HQ, CBDA will provide TEU assets to the SRFC.

(6) Cdr USACMDA will coordinate legal and environmental issues concerning movement and final destination.

(7) Cdr TEU will:

- (a) Provide render safe procedures, packaging and security of munitions until transport.
- (b) Escort the munition from the site to airfield.
- (c) Transload the munitions to fixed wing aircraft at AAFB, and escort munition to final destination.

~~OPERATIONS ORDERS 93-01~~

(d) Ensure that accountability of the munitions is transferred to final destination, upon mission completion.

(8) Installation commander of final destination will receive the item, and:

(1) Make necessary arrangements to transport the munition to a surety storage structure.

(2) Assume accountability for the munition from the TEO upon arrival.

(3) Prepare and submit required reports.

b. Coordinating Instructions.

4. SERVICE SUPPORT.

5. COMMAND AND SIGNAL.

FRIEL
BG

Annexes:

- A - Task Organization
- B - Not Used
- C - Operations

BODY:

1. Date/Time: 7 Jan 93, XXXX hrs.
2. Location: Vicinity of 511 52d Place NW, WASH DC
3. Quantity and type of munitions/containers and chemical agents involved:

QTY	TYPE	CHEMICAL
6 ea.	75mm Artillery rds.	Unknown
11 ea.	Livens Projectiles	Unknown

4. Description of what happened: On 5 January 1993, on or about 1415 hrs., MDW EOC received a request from WASH DC OEP to dispatch the 67th EOD to the site defined above. A civilian contractor who was digging a utilities trench for a newly constructed house discovered what appeared to be munitions in the bottom of the trench along with a large amount of debris. The 67th EOD responded immediately. At approximately 1535 hours, 67th EOD identified the potential presence of chemical munitions and requested assistance from the TEU at Aberdeen, MD. They also requested the MDW PAO be sent to scene. The TEU advance party was flown to the discovery site by US Park Police helicopter and arrived at approximately 1840 hours. The ground element of the TEU arrived at approximately 2030 hours. Preliminary investigation and identification of the munitions found indicated that they were of WW I origin and were primarily designed to deliver chemical payloads. Initial find included 4 intact, fuzed Stokes rds; 1 each unfuzed 105mm rd.; 3 ea 75mm projectiles and 4 containers initially described as looking like the old M5 shipping containers (subsequently identified as Livens projectiles). As the TEU continued to explore the site, they discovered 7 more Livens projectiles, bringing the total to 11. All the Livens projectiles and 6 of the 75mm rounds exhibit the sound of sloshing liquid when checked with a noticeable change in the center of gravity. Deliberate action is not applicable in this case.

7. Personnel Casualties/Injuries: None.
8. Off-Post Medical Services Required: N/A
9. SRF Commander Required: Appointed by HQDA MSG dtg 071423Z Jan 93.

10. Assistance Required:

a. Shipping Containers.

b. ??

11. Other Pertinent Information:

a. The immediate area surrounding the site is being evacuated for a distance of 300M (4 blocks) every day from 0900 until 2100 during the conduct of work.

b. The first press conference in which military spokesperson will participate will be held at 1200, 7 JAN 93.

12. Commander's Assessment: Situation is under control. All civilian and military agencies are cooperating in all aspects of the recovery. TEU continues to discover more fragments and munitions as they explore the excavation site. Assistance will be needed when the munitions are ready for trans-shipment to a safe disposal area.

13. Emergency Disposal of Hazardous Munitions:

a. Type of air samples and test kits used and results.

b. Type and amount of explosive used to destroy each munition: N/A.

HEADER: THIS IS A CHEMICAL EVENT REPORT, RCS: CSGPO-453.

BODY:

1. Date/Time: 7 Jan 93, 2200 hrs.
2. Location: Vicinity of 5111 52d Place NW, WASH DC
3. Quantity and type of munitions/containers and chemical agents involved:

QTY	TYPE	CHEMICAL
4 ea.	75mm Artillery rds.	Unknown
11 ea.	Livens Projectiles	Unknown
3 ea.	Hand Grenade Type	Unknown

4. Description of what happened: On 5 January 1993, on or about 1415 hrs., MDW EOC received a request from WASH DC OEP to dispatch the 67th EOD to the site defined above. A civilian contractor who was digging a utilities trench for a newly constructed house discovered what appeared to be munitions in the bottom of the trench along with a large amount of debris. The 67th EOD responded immediately. At approximately 1535 hours, 67th EOD identified the potential presence of chemical munitions and requested assistance from the TEU at Aberdeen, MD. They also requested the MDW PAO be sent to scene. The TEU advance party was flown to the discovery site by US Park Police helicopter and arrived at approximately 1840 hours. The ground element of the TEU arrived at approximately 2030 hours. Preliminary investigation and identification of the munitions found indicated that they were of WW I origin and were designed to deliver chemical payloads. Initial find included 4 intact, fuzed Stokes rds; 1 each unfuzed 105mm rd.; 3 ea 75mm projectiles and 4 containers initially described as looking like the old M5 shipping containers (subsequently identified as Livens projectiles). As the TEU continued to explore the site, they discovered 7 more Livens projectiles, bringing the total to 11. All the Livens projectiles and 4 of the 75mm rounds exhibit the sound of sloshing liquid when checked with a noticeable change in the center of gravity. A subsequent document investigation indicates the site was at one time (1917-18) the American University Experiment Station and became the Research Division of the Chemical Warfare Service. Apparently, the contractor may have unearthed a munitions disposal site. Although this has been reported as a Chemical Event, no Chemical Surety Material has been identified, nor has any chemical agent contamination been found.

5. Emergency Notification Level: Community emergency.

6. Description of Property Damage: N/A.
7. Personnel Casualties/Injuries: None.
8. Off-Post Medical Services Required: N/A
9. SRF Commander Required: Yes, as appointed by HQDA MSG dtg 071423Z Jan 93.

10. Assistance Required:

a. Shipping containers for overpacking liquid filled, suspect chemical agent munitions approved for use in air shipment as required by 49CFR.

b. Certification criteria and monitoring/test equipment for certifying scrap metal/unexploded, non-liquid filled munitions as meeting 3X/5X standards. Also provide disposition instructions.

11. Other Pertinent Information:

a. The immediate area surrounding the site is being evacuated for a distance of 300M (4 blocks) every day from 0900 until 2100 during the conduct of work.

b. The first press conference in which military spokesperson ~~will participate~~ will be held at 1200, 7 JAN 93.

12. Commander's Assessment: Situation is under control. All civilian and military agencies are cooperating in all aspects of the recovery. TEU continues to discover more fragments and munitions as they explore the excavation site. Assistance will be needed when the munitions are ready for trans-shipment to a safe disposal area. - The OSC/SRF ~~is~~ Site late
7 Jan 93

13. Emergency Disposal of Hazardous Munitions: N/A.

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AA ZYUW 081830ZJAN93

SRF/OSC

HQDA WASH DC//DAMO-SWS/DAMO-SWC/DALO-SMA-ECD/DACS-SF/
DAMO-ODL/SGPS-PSP/SAIG-TI/SFIL-CD//
CDRUSANCA FT BELVOIR VA//MONA-SU/MONA-CM//
CDRAMC ALEX VA//AMCAM-CN/AMCSF-C//
PM CML DEMIL APG MD//SAILE-PM/SAILE-MS//
INFO CDR CBDA APG MD/AMSCB-CMO//
CDR MDW WASH DC/ANCS/ANOP

UNCLAS

SUBJ: CHEMICAL EVENT REPORT

1. GENERAL. SFC COMMANDER ARRIVED ON SITE 7 JAN 93, ASSESSED STATUS
AND ISSUED DIRECTIVES FOR 08 JAN 93 OPERATIONS KEY PERSONNEL:

OSC/SRFC BG FRIEL

DEPUTY COL READ

IRF CDR COL HARDESTY

SITE CDR LTC BATT

2. OPERATIONS.

A. CURRENT OPERATIONS. BEGINNING 080900 JAN 93. OPERATIONS
CONTINUE UNDER TEU DIRECTION TO PREPARE MATERIALS EXTRACTED FROM SITE
FOR TRANSPORT AND REMOVAL FROM THIS LOCATION. THREE DISTINCT MATERIAL

SPC TANA S. CRUMBLEY, CLERK TYPIST
ANOP-OP, 475-0772

DENNIS J. CLAUSEN, DCSOPS, ANOP,

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081330ZJAN93

UNCLASSIFIED

3 081330Z JAN 93 RR

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AA ZYUW 081830ZJAN93

GROUPINGS EXIST: UNEXPLODED, NON-LIQUID FILLED MUNITIONS; LIQUID FILLED SUSPECT CHEMICAL MUNITIONS; AND METAL SCRAP. PRIORITY EFFORTS WILL GO TOWARD REMOVAL OF NON-LIQUID UXO UNDER FOD CONTROL AND LIQUID FILLED MUNITIONS UNDER TEU CONTROL.

B. PLANNED OPERATIONS. BASED UPON PREFERENCE OF CIVIL AUTHORITIES AS WELL AS SAFETY ASSESSMENTS RESOLVING FROM WEATHER, ETC., THE SRFC INTENDS TO TERMINATE OPERATIONS AND SECURE THE SITE BY 082100R JAN 93, AND RESTORE SITE OPERATIONS EFFECTIVE 110900R JAN 93. CIVIL AUTHORITIES WILL PROVIDE SECURITY THROUGH THE WEEKEND.

3. PUBLIC AFFAIRS. COORDINATION WITH CIVIL AND OTHER FEDERAL AGENCY PUBLIC AFFAIRS IS WORKING WELL. SRFC HAS NO PLANNED PRESS CONFERENCES FOR 08 JAN 93.

4. HOMEOWNER/RESIDENTS. RELATIONS CURRENTLY APPEAR GOOD WITH HOMEOWNERS/RESIDENTS. SRFC PLANS TO BRIEF HOMEOWNERS ASSOCIATION PRIOR TO SECURING SITE FOR WEEKEND. FOCUS WILL BE ON ASSESSING SAFETY AND SECURITY FOR THE WEEKEND.

5. COMMANDER'S ASSESSMENT. SITUATION IS UNDER CONTROL. ADVERSE WEATHER CONDITIONS WILL LIMIT AIR TRANSPORT OF MATERIAL FROM THE SITE. SRFC IS CURRENTLY WORKING WITH ARSTAFF FOR GROUND MOVEMENT OPTIONS. INTENT IS TO PUSH FORWARD WITH ON-SITE OPERATIONS AS

SPC TANA S. CRUMBLEY, CLERK TYPIST
ANOP-OP, 475-0772

DENNIS J. CLAUSEN, DCSOPS, ANOP,

UNCLASSIFIED

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UNCLASSIFIED

081330Z JAN 93 RR

UUUU

AA ZYUW 081830ZJAN93

REVISOULY DISSCUSSED WITH SAFETY REMAINING PARAMOUNT. OUTSTANDING ISSUE REQUIRING RESOLUTION IS CERTIFICATION CRITERIA AND DISPOSITION INSTRUCTIONS FOR THE THREE GROUPS OF MATERIAL. NO FURTHER IMMEDIATE NEEDS AT THIS POINT. SRFC WILL BE PREPARED TO OFFER FULL STATUS BRIEF IN AOC ON 11 JAN 93. UNDERSECRETARY OF ARMY SHANNON WAS BRIEFED BY IRF COMMANDER AT 1000 HRS 08 JAN 93.

SPC TANA S. CRUMBLEY, CLERK TYPIST
ANOP-OP, 475-0772

DENNIS J. CLAUSEN, DCSOPS, ANOP,

UNCLASSIFIED

081330ZJAN93



DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND
5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333 - 0001



REPLY TO
ATTENTION OF

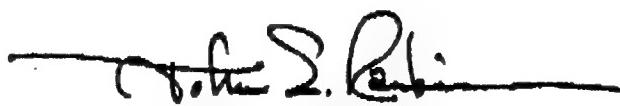
AMCSF-C

8 January 1993

MEMORANDUM FOR Brigadier General Friel, Service Response Force Commander

SUBJECT: Service Response Force (SRF) - Springvalley

1. Reference memorandum, HQDA, DACS-SF, 3 November 1992, subject: Implementation of the Army Toxic Chemical Agent Safety Program; with 1st End, HQAMC, AMCSF-C, 10 December 1992, and 2 enclosures.
2. Understand there is a strong likelihood that chemical munitions/agents may be encountered during SRF operations. Accordingly, recommend those operations be conducted IAW current Army chemical agent safety standards.
3. Those standards require the use of low-level, real-time agent monitors in order to prescribe the appropriate level of personal protective equipment, including respirators. In the absence of monitors, self-contained breathing apparatus, with protective ensemble are required.
4. Agents that may be contained in the munitions recovered to date are mustard, lewisite, or phosgene. Currently, no low-level chemical monitors can detect lewisite.
5. In view of the unknown character of agent fill and the deteriorated condition of the munitions recovered, worst case potential should be considered. Thus recommend that anyone in the area of potential agent exposure wear Alternate Level A protective clothing as described in Draft DA PAM 385-61, Toxic Chemical Agent Safety Standards, implemented by reference.
6. Other details on current Army chemical agent safety requirements are contained in the document just cited.
7. POC is Mr. Keith E. Godfrey, DSN 284-9340, Commercial (703) 274-9340, (FAX: 284-9469).
7. AMC -- America's Arsenal for the Brave.


JOHN E. RANKIN
Chief
Safety Office

CF:
AMCCB
AMCSG
AMCCC

LTC WAGNER/KC COONAN

REQUEST THIS BE REVIEWED BY
DA SAFETY. NEED ADVICE AS TO WHICH
WAY TO PROCEED. SRF COR BELIEVES
TEC IS PRUDENTLY BALANCING RISK
WITH MISSION.

IF NECESSARY TO MODIFY SITE
PROCEDURES, NEED TO KNOW PRIOR
TO SITE START-UP 0900 11 JAN.

Cec READS

- 01.08.93 05:53 PM

(703) 697-3999 F O 1

UNCLASSIFIED	
TO:	
Name	<u>BG FRIEL</u>
Number of Pages	<u>1</u> Plus This Header
Date	<u>8 JUN</u> 1993
Time	<u>1640</u> Hours
Command	<u>SRF - SPRINGFIELD</u>
Office Symbol / Room #	
Telephone Number	<u>202-282-1160</u>
Remarks:	<hr/> <hr/> <hr/>
Data Fax Number	<u>202-282-1164</u>

FROM: **SAFETY OFFICE**

C H E M I C A L

NAME: **KEITH E. GODFREY**
Commercial: (703) 274-9340
DSN / AUTOVON: 284-9340
Datafax: (703) 274-9489
: DSN 284-9489

HQ US ARMY MATERIEL COMMAND
AMC6F-C, Room 10N41
5001 Eisenhower Avenue
Alexandria, Virginia 22333-0001

UNCLASSIFIED

UNCLASSIFIED

03 02 JAN 93 00 00 UUUU

DA WASHINGTON DC //DAMO-ODO-CAT//

CDR CBDA APG MD //AHSCB-CG//

INFO

HQ AMC ALEXANDRIA VA //AMCCG//AMCOC-LG/AMCCB//

CDR PBA PINE BLUFF AK //CDR//

CDR AMCCOM ROCK ISLAND IL //AMSMC-OC//

CDR USA MDW FT McNAIR WASHINGTON DC //ANOP-OP//

DA WASHINGTON DC //DAMO-SW/SFIL-CD//

UNCLAS

CDR CBDA PASS TO CDR SRF WASHINGTON DC FOR ACTION.

SUBJ: DISPOSITION INSTRUCTION FOR SUSPECT CHEMICAL MUNITIONS

A. MEETING WITH COL LOU JACKSON, PROGRAM MANAGER, NON-STOCKPILE AND LTC COLEMAN, DAMO-ODO-CAT, 8 JAN 93.

B. PER REF A, COORDINATION WITH APPROPRIATE AGENCIES IS COMPLETE. THIS MESSAGE PROVIDES DISPOSITION INSTRUCTIONS FOR RECOVERED SUSPECT CHEMICAL MUNITIONS.

C. UNDER THE EMERGENCY PROVISIONS OF RICRA, YOU ARE AUTHORIZED TO SHIP SUSPECT CHEMICAL-FILLED MUNITIONS FROM WASHINGTON DC THROUGH THE STATE OF MARYLAND TO ANDREWS AIR FORCE BASE FOR SUBSEQUENT SHIPMENT BY AIR TO PINE BLUFF ARSENAL, ARKANSAS.

LTC J.M. COLEMAN, GS, DAMO-SWS
7-3033

COL S.E. WILSON, GS, DAMO-ODO, 7-5030

Stebbins

UNCLASSIFIED

UNCLASSIFIED

02 02

JAN 93 00 00 UUUU

3. WASHINGTON DC AND STATE OF MARYLAND ENVIRONMENTAL REGULATORS WERE NOTIFIED THAT SUBJECT MUNITIONS WOULD BE MOVED FROM SITE TO ANDREWS AFB BY ARMY HELICOPTER FOR TRANS-SHIPMENT.
4. ARKANSAS ENVIRONMENTAL REGULATORS WERE NOTIFIED AND AGREED TO ACCEPT THE SHIPMENT.
5. YOU ARE TASKED TO DEVELOP A PLAN FOR TEMPORARY STORAGE OF THE MUNITIONS SHOULD ADVERSE WEATHER PRECLUDE IMMEDIATE SAFE AERIAL MOVEMENT. PROVIDE CONCEPT TO AOC FOR APPROVAL PRIOR TO IMPLEMENTATION.
6. POC, DAMO-ODD-CAT, LTC COLEMAN, (703)-673-4827/4826.

UNCLASSIFIED

IMMEDIATE

DATE: 011
TIME: 1015

0467

11 January 93)0457)
1 Cy Reading File
ACTION: AMSCB-BM
INFO: AMSCB-CG

BT
CINCPAC RUEAFCR9944 011124Z-0111--RUEAFCR.
CDR CEDAR CDR RUEAFCR9944 REBOUTS OF RUEADWD9944 008200S
DNR CEDAR CDR RUEAFCR9944 REBOUTS OF RUEADWD9944 008200S
RUEAFCR T CDR CEDAR APG MD
0 081905Z JAN 93
FM DA WASHINGTON DC //DAMO-ODO-CAT//
TO RUEAFCR/CDR CEDAR APG MD // AMSCB-OP//
INFO RUEADWD/HD AHC ALEXANDRIA VA //AMSCB//AMDCG//AMDCG-LG//AMCCB//
RUEADWD/CDR PEA FINE BLUFF AR //DOR//
RUEPNB/CDRAMCOM ROCK ISLAND IL //AMSCB-OC//
RUEADWD/CDR USA MW FT MONAHL WASHINGTON DC //ANOP-OP//
RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIL-CD//
RUEADWD/DA WASHINGTON DC //DAMO-SW/SFIL-CD//

BT

UNCLAS

CDR CEDAR PASS TO CDR SRF WASHINGTON DC FOR ACTION.
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PAGE 02 RUEADWD9944 UNCLAS
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IMPLEMENTATION.
6. POC. DAMO-ODO-CAT, LTC COLEMAN, (703)-693-4827/4826.

BT

#9944

PAGE: 1

IMMEDIATE

FACSIMILE/DACOM TRANSMITTAL HEADER SHEET

COMMAND	OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASERS SIGNATURE	
FROM LTC Coleman -AO-	DAMO- OAO-CAT	(703) 634827	LTC Coleman	
TO COL Read SRF		DATE-TIME 081804	MONTH Jan	YEAR 93
CLASSIFICATION U	PAGES 2	PRECEDENCE R	FAX • VERIFY • (202) 282-0633	

REMARKS: Sir, My MTR from the meeting. I think
- this may help. Also latest EXSUM

CONTACT: COL Read **AT:** _____
NAME: _____ **TELEPHONE NUMBER:** _____

UPON RECEIPT OF THIS FAXIMILE MESSAGE FOR PICKUP, ADDRESSEE IS REQUESTED
TO ACKNOWLEDGE RECEIPT TO THE ORIGINATOR AT THE ABOVE TELEPHONE NUMBER.

SPACE BELOW IS FOR COMMUNICATIONS CENTER USE

MESSAGE NUMBER	TIME OF TRANSMISSION	TIME OF RECEIPT
OPERATOR NUMBER	VERIFICATION INITIALS	DUTY OFFICER'S INITIALS

PTD REMARKS: _____

PTD STU JJJ... AV 224-3086 OR 223-7333
PTD VERIFICATION... AV 223-3281/2282

PTD TELEOPER... AV 227-3873 NMCLAS BNLT1

DA FORM 3813-R

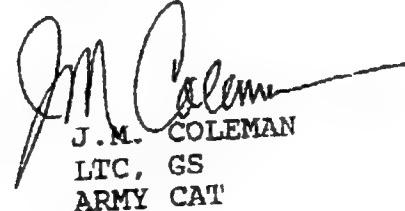
January 8, 1993

DAMO-ODO-CAT

MEMORANDUM FOR COL Read, SRF, Washington D.C.

SUBJECT: Homeowner Meeting Regarding Chemical Event 8 Jan 1993

1. Mr. D. Walker held a meeting with Spring Valley homeowners, Miller Construction Company, and members of the Secretariat and ARSTAFF, to distribute a press release (ENCL 1) and listen to the concerns of the homeowners (attendees are listed in ENCL 2).
2. Homeowners were assured that the Army is taking the proper actions to clean up the site. Concerns included:
 - a. Hours worked. Some families evacuated have small children and 2100 hours is late for them to return home. Recommend you raise this issue with homeowners on site. Your call.
 - b. Concern for community information. Homeowners felt they were not getting adequate information from the city. They desire more info. I think your initiatives that we discussed today will resolve this.
 - c. Completion time. Developer and homeowners would like an estimate of time to complete this phase. I told them when survey with magnetometer is complete, SRF will develop estimate and communicate.
 - d. Evacuation distance. Homeowners asked if evacuation distance would always be the same. I explained that it varies with number of munitions, explosive weight, wind speed and direction, and type of suspect agent. If possible, suggest you try to reduce evacuation distance if possible based on operations.



J.M. COLEMAN
LTC, GS
ARMY CAT

8 Jan 93

(U) CHEMICAL EVENT VIC AMERICAN UNIVERSITY, WASHINGTON D.C. (U)
1700 UPDATE. Service Response Force (SRF) CDR, BG Friel on-site
7 Jan 93. Priority efforts are prep of high explosive (HE) and
liquid-filled munitions for movement, then scrap metals. Plan is
to ship suspected chemical munitions by Army helicopter to
Andrews AFB then to Pine Bluff Arsenal, AR. Wash D.C., State of
MD, and AR officials approved. DOT approved shipping suspect
chemical munitions in single round containers (SRC) and secondary
steel containers (SSC) on mil air. AMC shipped 6 SSCs and 12
SRCs to arrive 8 JAN 2040 at BWI. MDW is coordinating approval
for ground movement of HE. IAW preference of local authorities,
SRF opns will cease 8 JAN 2100 and resume 11 Jan 0900. Civil
authorities will secure site. SRF CDR will provide bunker brief
in AOC on 11 JAN.
PROVIDE MEMO

LTC Wagner/DAMO-ODO-CAT/34827

APPROVED BY Hiltz, Col, GS, DAMO-ODO-CAT

JAN-08-1993 22:27 FROM AOC CRISIS CENTER

TO

912032820728 P.01

PACSIMILE/DACOM TRANSMITTAL HEADER SHEET

COMMAND	OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASES SIGNATURE	
SADM LTC Coleman	DAMO-000 CAT			
TO: COL Read	SRF	DATE-TIME 8/10/23	MONTH Jan	YEAR 93
CLASSIFICATION U	PAGES 3	PRECEDENCE R	FAX # (202)282-0633	VERITY #

REMARKS: This memo may be informative. Also do you have estimate on closure time tonight?

CONTACT: Col Read AT TELEPHONE NUMBER

UPON RECEIPT OF THIS FAXIMILE MESSAGE FOR PICKUP, ADDRESSEE IS REQUESTED TO ACKNOWLEDGE RECEIPT TO THE ORIGINATOR AT THE ABOVE TELEPHONE NUMBER.

SPACE BELOW IS FOR COMMUNICATIONS CENTER USE

MESSAGE NUMBER	TIME OF TRANSMISSION	TIME OF RECEIPT
OPERATOR NUMBER	VERIFICATION INITIALS	DUTY OFFICER'S INITIALS
		FAX TELEPHONE NUMBER

PTD REMARKS

PTD STU III....AV 224-3086 OR 223-7333
PTD VERIFICATION... AV 223-2381/2282

PTD TELEPIPER.... AV 227-8878 RUMCLAS ONLY

DA FORM 3818-R

JAN-08-1993 22:28 FROM ADC CRISIS CENTER

TO

912022820728 P.02



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS
WASHINGTON, DC 20313-0400



REPLY TO
ATTENTION OF

DAMO-ODO-CAT (50-6a)

8 JAN 1993

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Chemical Event Vicinity American University,
Washington, D.C. -- INFORMATION MEMORANDUM

1. The Army Crisis Action Team (CAT) is currently operating in the Army Operations Center in support of Operation RESTORE HOPE. The CAT issued directives on 7 January 1993 establishing an Initial Response Force (IRF) under the provisions of AR 50-6 after the discovery of World War I era munitions materiel which could contain toxic chemicals at a housing project in Northwest District of Columbia.

2. The Service Response Force Commander/Federal On Scene Coordinator is BG George Friel, Commander of the U.S. Army Chemical Biological Defense Agency (CBDA). BG Friel, assisted by experts from the CBDA Technical Escort Unit, the Military District of Washington, and the U.S. Army Corps of Engineers, is directing the recovery of all of the munitions materiel at the excavation site.

3. The Assistant Secretary of the Army (Installations, Logistics and Environment) is the DA Secretariat with responsibility for policy oversight of this operation.

4. The Chief of Public Affairs (SAPA) is the single PAO point of contact. The on site PAO will coordinate all inquiries and news releases with SAPA.

5. Since all agencies have representatives on the CAT, any inquiries are best handled by referral to the CAT. LTC Morris Coleman, DAMO-SWS, is the single CAT point of contact for this event and may be reached at x34827 or x34826.

FOR THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS:

JOHN C. HELDSTAB
Major General, GS
Director of Operations,
Readiness and Mobilization

Distribution:
Secretary of the Army

DAMO-ODO-CAT

Subject: Chemical Event Vicinity American University,
Washington, D.C. -- INFORMATION MEMORANDUM

18 JAN 1993

Distribution (Cont):

Chief of Staff, Army
Under Secretary of the Army
Vice Chief of Staff, Army
Assistant Secretary of the Army (Installations, Logistics, and Environment)
Assistant Secretary of the Army (Manpower and Reserve Affairs)
Assistant Secretary of the Army (Financial Management)
Assistant Secretary of the Army (Civil Works)
Assistant Secretary of the Army (Research, Development and Acquisition)
General Counsel
Administrative Assistant to the Secretary of the Army
Director of the Army Staff
The Inspector General
Deputy Chief of Staff for Personnel
Deputy Chief of Staff for Intelligence
Deputy Chief of Staff for Operations and Plans
Deputy Chief of Staff for Logistics
Director for Information Systems for Command, Control, Communications and Computers (SAIS)
Comptroller
Chief of Legislative Liaison
Chief of Public Affairs
Chief, Army Reserve
Chief, National Guard Bureau
The Surgeon General
The Adjutant General
Assistant Chief of Engineers
Director of Plans, Policy and Strategy Directorate
Director, Training Directorate
Director of Force Development

JAN-08-1993 23:12 FROM ADC CRISIS CENTER

TO

92022820728 P.01

FACSIMILE/DACOM TRANSMITTAL HEADER SHEET

COMMAND	OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASES SIGNATURE	
FROM: LTC Coleman AOC	DAMO-000- CAT		<i>JM Coleman</i>	
TO: COL READ BG Friel	SRF	DATE-TIME 081810	MONTH Jan	YEAR 93
CLASSIFICATION <i>U</i>	PAGES 3	PRIORITY R	FAX # 202-282-0728	VERITY #

REMARKS: Mrs Livingston Itinerary for Sunday 10 Jan 93
- Lowkey visit will arrive about 1015

CONTACT COL Read AT _____
 RANK - NAME _____
 TELEPHONE NUMBER _____

ACK RECEIPT OF THIS FACSIMILE MESSAGE FOR PICKUP. ADDRESSEE IS REQUESTED
 TO ACKNOWLEDGE RECEIPT TO THE ORIGINATOR AT THE ABOVE TELEPHONE NUMBER.

SPACE BELOW IS FOR COMMUNICATIONS CENTER USE

MESSAGE NUMBER	TIME OF TRANSMISSION	TIME OF RECEIPT
OPERATOR NUMBER	VERIFICATION INITIALS	DUTY OFFICER'S INITIALS

PTD REMARKS

PTD 370 333...17 224-3036 OR 223-7233
 PTD VERIFICATION... AV 226-2231/2233

PTD TELECOPIER... AV 227-3373 RUMCLAS DNLTI

D. FORM 3313-R

**AFIC DRESS REHEARSAL
52ND INAUGURAL**

**ITINERARY FOR THE HONORABLE
SUSAN LIVINGSTONE
ASSISTANT SECRETARY OF THE ARMY
(INSTALLATIONS, LOGISTICS AND ENVIRONMENT)**

Sunday, 10 January 1993

- 0715 Leave the Pentagon Mall Entrance enroute to the Capitol
- 0730 Arrive at the Capitol (North Side)
- 0730-0830 View the Swearing-In Ceremony Rehearsal
 - Crypt Passage wy
 - Capitol Command Post
 - Swearing-In Podium
 - Statuary Hall Luncheon site
 - East side of the Capitol honors to President Clinton (0820)
- 0830 Depart East side of the Capitol enroute to the Forward Command Post (Madison and Pennsylvania Avenue)
- 0840-0855 Arrive at the Forward Command Post. Visit the Forward Command Post to view the Parade Rehearsal and Command and Control procedures
- 0855-0900 Visit the Merge Point (Madison and 3rd Street) to view the Parade, Float, Horse and Presidential Escort Rehearsal
- 0920 Depart the Forward Command Post Merge Point enroute to the Presidential Reviewing Stand (White House) via Pennsylvania Avenue
- 0930-1000 View the Pass In Review Rehearsal
- 1000 Depart the Reviewing Stand enroute to American University (511 52nd Court, N.W., Washington, DC)
- 1015-1045 Visit the site operations
- 1045 Depart the site enroute to the Pentagon
- 1100 Arrive at the Pentagon

-2-

Official Party

1. Mrs. Susan Livingstone, Assistant Secretary of the Army (Installations, Logistics & Environment)
2. Mr. James De Wire, Deputy for Installation Management and Program Analysis, OASA(IL&E)
3. LTC Gregory Laird, Military Assistant to ASA(IL&E)
4. LTC Chris Russo, Escort Official, AFIC (Deputy Director Operations)

Transportation

Military Van (USMC #288598)
Driver: SSGT Hodge (AFIC/USAF)

JAN-08-1993 19:11 FROM AOC CRISIS CENTER

TO

912022820633 P.01

FACSIMILE/DACOM TRANSMITTAL HEADER SHEET

COMMAND	OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASERS SIGNATURE	
FROM LTC Coleman DAMO -	DAMO-080- CAT		<i>JM Cole</i>	
TO: Col Read BG triel	5RF	DATE-TIME 081903	MONTH Jan	YEAR 93
CLASSIFICATION U	PAGES 2	PRIORITy R	FAX # (202)282-0633	VERIFY #

REMARKS: Sir, This guidance came from MG Helstab
 for Monday's Bunker Brief in AOC. If you
 can help, let me know.

CONTACT: Col Read AT _____
 RANK - NAME: TELEPHONE NUMBER:

UPON RECEIPT OF THIS FAXIMILE MESSAGE FOR PICKUP, ADDRESSEE IS REQUESTED
 TO ACKNOWLEDGE RECEIPT TO THE ORIGINATOR AT THE ABOVE TELEPHONE NUMBER.

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OPERATOR NUMBER	VERIFICATION INITIALS	DUTY OFFICER'S INITIALS

PTD ADDRESS:

PTD STU 333... AV 224-3986 OR 225-7333
PTD VERIFICATION... AV 225-3331/3332

PTD TELECOPIER... AV 227-3373 FAX 226-3373 BNLT

DA FORM 3818-R

9011-80-1993 19:11 FROM ADC CRISIS CENTER

TO

912022820633 P.02

DAMO-ODO-CAT

8 Jan 93

THRU DEP SRF CDR WASH, D.C. (COL Read)
TO SRF CDR WASH, D.C. (BG Friel)

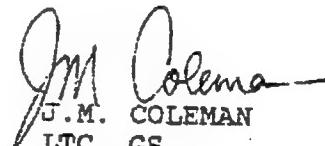
SUBJECT: Bunker Brief

1. MG Heldstab, Director, Operations, Readiness and Mobilization, requested SRF CDR to provide an update briefing to the Chief of Staff of the Army concerning the Chemical Event VIC American University, Wash D.C. on 11 Jan 93 at 0700 in the Army operations center (AOC). Be prepared to prebrief MG Heldstab at 0630.

2. Request you consider the following for presentation in your brief.

- Air movement operations
- Ground movement operations
- Plan if temporary storage is required.
- Safety certification issues
- Homeowner concerns
- Support issues

3. Army CAT will provide needed audio visual support as required. Coordinate preparation of briefing slides through the Assistant CAT Team Chief at (703) 697-5064/693-4823.


J. M. COLEMAN
LTC, GS
Army CAT

HQ CPDA
APG, MD
9 Jan 93

OPERATION SAFE REMOVAL

Time Zone Used Throughout the Plan: ROMEO
Task Organization: Annex A (Task Organization)

1. SITUATION.

a. On 5 January 1993, work crews discovered abandoned munitions at a construction site in Washington D.C., in the 5200 block of 52nd Court NW. (This area is in a triangle formed by Massachusetts Avenue, Van Ness Street, and Delecearlia Parkway, near American University.)

b. On or about 05 1700 Jan 93, AMC HQ authorized Cdr, CBDA to dispatch elements of the Technical Escort Unit (TEU). TEU responded and provided an officer in charge (OIC), EOD assets, and other support.

c. On or about 07 0900 Jan 93, AMC directed the Cdr, CBDA to assume duties as Service Response Force Commander (SRFC) and Federal On-Scene Coordinator to coordinate all response and remediation activities.

d. Friendly Forces.

(1) HQ, AMCCOM: aviation support to SRFC.

(2) FORSCOM Explosive Ordnance Disposal

(3) MDW: Administrative, logistical, and security support, as required.

(4) USACMDA: Non-stockpile support.

e. Attachments and Detachments. Annex A (Task Organization).

2. MISSION. SRFC will mitigate hazards on site, protect the public, and develop a plan for the final disposition of all munitions and associated materials found. When the overall situation is clearly no longer an emergency, the SRFC will pass control of the event to the Army Corps of Engineers (COE) for final resolution.

3. EXECUTION.

a. Concept of Operation. Annex C (Operations).

(1) Reference: AMC Chemical Service Response Force Commander's Emergency Response Plan (AMC CSRFCERP).

(2) The Commander, CLDA as the SRFC, OSC will select a personal and SRF staff, and deploy to the incident site by the most expeditious means practicable.

(3) The priorities for response are:

- (a) Protect the health and safety of the public.
- (b) Protect the environment.
- (c) Render-safe of munitions, as required.
- (d) Characterization of the hazard, including filler of munition.
- (e) Appropriate packaging of suspect DSM filled munitions.
- (f) Movement of packaged munitions to the Andrews AFB (AAFB).
- (g) Transloading of packaged munitions to final destination.
- (h) Escort of packaged munitions to final destination.

(4) HQ, AMC (AMCCB) in concert with the CBDA Plans and Contingency Operations Division will:

- (a) Arrange for fixed wing aircraft.
- (b) Provide required coordination with MDW and final destination.
- (c) Prepare and submit required REPSHIP reports.

(5) HQ, CBDA will provide TEU assets to the SRFC.

(6) Cdr, USACMDA will coordinate legal and environmental issues concerning movement and final destination.

(7) Cdr, TEU will:

- (a) Provide render-safe procedures, packaging and security of munitions until transport.
- (b) Escort the munition from the site to airfield.
- (c) Transload the munitions to fixed wing aircraft at AAFB, and escort munition to final destination.

(d) Ensure that accountability of the munitions is transferred to final destination, upon mission completion.

(8) Installation commander of final destination will receive the item, and:

(a) Make necessary arrangements to transport the munition to a surety storage structure.

(b) Assume accountability for the munition from the TEO upon arrival.

(c) Prepare and submit required reports.

c. Coordinating Instructions.

4. SERVICE SUPPORT.

a. Commander MDW will provide a director of support to coordinate administrative and logistical support as required.

b. Other responding agencies will be under operational control of SRFC for service support.

5. COMMAND AND SIGNAL.

a. Command. Chain of Command is from the CAICO to the SRF Commander to ODCSOPS. Coordination Chain is from the SRF Director of Operations to the Army Operations Center.

b. Signal. Director of Support will coordinate for sufficient voice, data and HF communication to support operations.



FRIEL
BG

Annexes:

A - Task Organization

B - Not Used

C - Operations

Annex A - Task Organization

1. SRF Staff:

- (a) SRFC/OSC - BG George Friel, CG, CBDA
- (b) Deputy SRFC - COL Richard Read, DC, CBDA
- (c) HQ Cdt - MAJ Cecil Thompson, Chf Mil Per Div, CBDA
- (d) Dir of Spt - COL Dwayne Hardesty, DC, U.S. Army MDW
- (e) Dir of Special Staff - COL Charles Kenison, CBDA
- (f) Dir of Operations - Mr. Kenneth Boyd, CBDA
- (g) Field Operations - LTC William Batt, Cdr, TEU

2. Attachments:

- (a) 67th Ord Det (EOD)
- (b) PM non-stockpile, USACMDA
- (c) Baltimore District, COE
- (d) 101 CHEMICAL COMPANY(-)

2
IMMEDIATE

0464

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11 JAN 93 0464

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ZNR UUUUU

O 090245Z JAN 93

FM DA WASH DC//DAMO-ODD-CAT// ✓

TO RULNAPG/CDR CBDA APG MD//AMSCF-DR//

INFO RUKLDAR/CDR AMC ALEXANDRIA VA//AMCOS/AMCOC-LB/AMCDS//

RUEANEW/CDRUSAEHA APG MD //CDR// ✓

RUKGNWD/CDR USA MDW FT MCNAIR WASHINGTON DC//AMCS ANOP-OPX//

RUEANEW/PM CML DEMIL APG MD//SAILE-PM/SAILE-MB//

RUKGNBA/CDRUSANCA FT BELVOIR VA //MONA-SU/MONA-DM//

RUEADWD/DA WASHINGTON DC//DAMO-SW/SFIL-SD/DACE-BP//

BT

UNCLAS

CDR CBDA PASS TO SRF/DSC WASHINGTON DC FOR ACTION.

CDR CBDA PASS TO SRF/DSC WASHINGTON DC FOR ACTION.

SUBJ: CHEMICAL EVENT REPORT FOLLOW-UP
A. SRF/DSC MSG DTG 081330Z JAN 93. SUBJ: CHEMICAL EVENT REPORT

B. FONECON BETWEEN LTC COLEMAN, ARMY CAT, MR RAY FATE, DA SAFETY, MF

RALPH ROGERS, USAEHA, 8 JAN 93.

1. REF A, PARA 5, REQUESTED DISPOSITION INSTRUCTIONS FOR
THREE GROUPS OF MATERIALS ON SITE. REF B COORDINATED PROCEDURES TO
CERTIFY DECONTAMINATION OF MATERIAL GROUPS AND SUBSEQUENT
DISPOSITION.

PAGE 02 RUEADWD0550 UNCLAS
2. RECEIVED FROM USAEHA EXPOSURE LIMITS FOR GENERAL PUBLIC FOR
CYANOGEND CHLORIDE, PHOSGENE, AND CHLOROPICRIN. USAEHA HAS
SAMPLING/TESTING CAPABILITY AND IF YOU REQUEST, ARMY CAT WILL TASK
USAEEHA TO SUPPORT ON-SITE. ARMY SAFETY WILL CERTIFY DECONTAMINATION
LEVEL MEASURED BY USAEHA. DISPOSITION WILL FOLLOW RESULTS OF
SAMPLING MEASUREMENTS.

3. FOC, DAMO-ODD-CAT, LTC COLEMAN, (703) 693-4826/4827 OR DSN
BT

#0550

NNNN

PAGE

IMMEDIATE

UNCLASSIFIED

01 02 112430Z JAN 93 00 UUUU

DA WASHINGTON DC//DAMO-0DO//

CDR FORSCOM FT MCPHERSON GA//FCJ3-OC/TN//

CDRXVIIIBNCORPS FT BRAGG, NC//AFZA-GT-0/GT-N//

CDRCBDA ABERDEEN PROVING GROUND, MD//AMSCB-CG//

CDRMDW WASHINGTON DC//ANOP-OP//

UNCLAS

CBDA PASS TO SRF/OSC CDR WASHINGTON D.C. FOR ACTION

SUBJECT: DECONTAMINATION SUPPORT FOR CHEMICAL INCIDENT

1. THIS MESSAGE CONSTITUTES FORMAL TASKING TO PROVIDE AN M12 DECONTAMINATION PLATOON TO SUPPORT SERVICE RESPONSE FORCE (SRF) OPERATIONS IN WASHINGTON D.C. PLATOON MISSION IS TO PROVIDE BACK-UP DECONTAMINATION SUPPORT FOR THE RECOVERY AND MOVEMENT OF SUSPECTED UNI CHEMICAL MUNITIONS.

2. PLATOON MUST BE PREPARED TO CONDUCT COMPLETE DECONTAMINATION OPERATIONS IF REQUIRED. THIS WILL REQUIRE THREE M12 PDDAS, PLATOON BASIC LOAD OF DECONTAMINANTS (DS2 AND STB), BATTLEDRESS OVERGARMENTS (BDO), PROTECTIVE MASK, GLOVES AND BOOTS, CONTINGENCY FILTERS, LBE, AND SOFT CAPS; NO WEAPONS REQUIRED. PLATOON SHOULD REPORT NLT 130001R JAN 93 TO NORTH FT BELVOIR, VA. BLDG #22644 DAYTIME POC IS MR. LOVE (703) 805-5009/6009 OR FT BELVOIR OPNS

MAJ CLARK, DAMO-0DO, 7-9854
RM BF 74BACOMEBACK COPY TO MAJ CLARK
RM BF 74BA

S.E. WILSON, COL, GS EXT 5-5505

UNCLASSIFIED

UNCLASSIFIED

02 02 112030Z JAN 93 00 UUUU

CENTER, EXT (703) 805-3370. AFTER DUTY HOURS CONTACT STAFF DUTY
OFFICER AT

3. PLATOON IS ATTACHED TO THE SRF COMMANDER FOR A PERIOD OF
APPROXIMATELY 1 WEEK. CDR MILITARY DISTRICT WASHINGTON WILL PROVIDE
CLASS I AND III.

4. TDY FOR SOLDIERS IS AUTHORIZED. ALL COSTS FOR THIS MISSION ARE
REIMBURSEABLE. HQDA WILL PROVIDE FUND CITE.

5. POC FOR SRF OPERATIONS IS MR BOYD (202) 282-0634/0642. MDW
SUPPORT POC IS MAJ CERRUTTI, (202) 475-0544. HQDA POC IS LTC WAGNER
OR LTC COLEMAN, DSN 223-4826.

S:\DECON.DBF-- ID# 1

UNCLASSIFIED

134

TOTAL P.04

SENT BY: COMMANDER, USACBDA

1-12-93 : 9:16 : COMMANDER, LSACBDA-OPN SAFE REMOVAL

CG - INFO

RTN TO OPS

0500

IMMEDIATE

DATE: 012
TIME: 1318
12 January 93 (0000)Y
1 Cy Reading File
ACTION: AMSCB-CM
INFO: AMSCD-CS

OTTUZOVW RULNCAR2855 0112208-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR5917 REROUTE OF RUEADWD2855 0112039
RUEANEW T CDRCBDA ABERDEEN PROVING GROUND MD
O 112030Z JAN 93

FM DA WASHINGTON DC//DAMO-ODD//
TO RHCGSRB/CDR FORSCOM FT MCPHERSON GA//FCJ3-DC/TN//
RUEOHNA/CDRXVIIIBNCORPS FT BRAGG NC//AFIA-GT-D/GT-N//
RULNEAA/CDRCBDA ABERDEEN PROVING GROUND MD//AMSCB-CB//
RUKGNDW/CDRMDW WASHINGTON DC//ANOP-OP// ✓
BT

UNCLAS

CDRA PASS TO SRF/OSC CDR WASHINGTON D.C. FOR ACTION
SUBJECT: DECONTAMINATION SUPPORT FOR CHEMICAL INCIDENT
1. THIS MESSAGE CONSTITUTES FORMAL TASKING TO PROVIDE AN M12
DECONTAMINATION PLATOON TO SUPPORT SERVICE RESPONSE FORCE (SRF)
OPERATIONS IN WASHINGTON D.C. PLATOON MISSION IS TO PROVIDE BACK-UP
DECONTAMINATION SUPPORT FOR THE RECOVERY AND MOVEMENT OF SUSPECTED
WWI CHEMICAL MUNITIONS.
2. PLATOON MUST BE PREPARED TO CONDUCT COMPLETE DECONTAMINATION
OPERATIONS IF REQUIRED. THIS WILL REQUIRE THREE M12 PDDAS, PLATOON
BASIC LOAD OF DECONTAMINANTS (DS2 AND STB), BATTLEDRESS
OVERGARMENTS (BDO), PROTECTIVE MASK, GLOVES AND BOOTS, CONTINGENCY
FILTERS, LBE, AND SOFT CAPS; NO WEAPONS REQUIRED. PLATOON SHOULD

PAGE 02 RUEADWD2855 UNCLAS

REPORT NLT 130001R JAN 93 TD NORTH FT BELVOIR, VA. BLDG 2244;
DAYTIME POC IS MR. LOVE (703) 805-5009/6009 OR FT BELVOIR OPNS
CENTER, EXT (703) 805-3370. AFTER DUTY HOURS CONTACT STAFF DUTY
OFFICER AT

3. PLATOON IS ATTACHED TO THE SRF COMMANDER FOR A PERIOD OF
APPROXIMATELY 1 WEEK. CDR MILITARY DISTRICT WASHINGTON WILL PROVIDE
CLASS I AND III.
4. TDY FOR SOLDIERS IS AUTHORIZED. ALL COSTS FOR THIS MISSION ARE
REIMBURSEABLE. HQDA WILL PROVIDE FUND CITE.
5. POC FOR SRF OPERATIONS IS MR BOYD (202) 282-0634/0642. MDW
SUPPORT POC IS MAJ CERRUTTI, (202) 475-0544. HQDA POC IS LTC WAGNER
OR LTC COLEMAN, DSN 223-4826.
BT

IMMEDIATE

PAGE: 1

0602

IMMEDIATE

DATE: 012
TIME: 0930 (0602)
1 Cy Reading File
ACTION: AMSCB-CI
INFO: AMSCB-CG

0AAUZYUW RUEOHNA3354 0112242-UUUU--RUEANEW.

ZNR UUUUU

O 112206Z JAN 93

FM CDRXVIIIBNCORPS FT BRAGG NC //AFZA-BT//
TO ZEN/CDR1STCOSCOM FT BRAGG NC //AFVH-GB//
INFO RUEADWD/DA WASH DC //DAMO-ODD//
RHCGSRB/CDR FORSCOM FT MCPHERSON GA //FCJ3-OC/TN//
RUEANEW/CDRCSBA ABERDEEN PROVING GROUND MD //AMSCB-CG//
RUKBNDW/CDRMDW WASH DC //ANDP-OP//

BT

UNCLAS

MSGID/GENADMIN/B3, XVIII ABN CORPS//
SUBJ/DECONTXMINXTION SUPPORT FOR CHEMICAL INCIDENT//
REF/A/MSG/DAMO-ODD/112030ZJAN93//
AMPN/SUBJ//BABY//
POC/MICHAEL MATEER/MAJ/PRIPHN:DSN 236-0371/-/-/SECOPHN:DSN 236-0372//
AKNLDB/YES//
RMKS/1. CDR, 1ST COSCOM, PROVIDE AN M12 DECONTAMINATION PLATOON TO
SUPPORT SERVICE RESPONSE FORCE (SRF) OPERATIONS IN WASHINGTON DC
COMMENCING 12 JAN 93. PLATOON MISSION IS TO PROVIDE BACK-UP
DECONTAMINATION SUPPORT FOR THE RECOVERY AND MOVEMENT OF SUSPECTED
WWI CHEMICAL MUNITIONS.

PAGE 02 RUEOHNA3354 UNCLAS

2. PLATOON MUST BE PREPARED TO CONDUCT COMPLETE DECONTAMINATION OPERATIONS IF REQUIRED. THIS WILL REQUIRE THREE M12 PDDAS, PLATOON BASIC LOAD OF DECONTAMINANTS (D82 AND STB), BATTLEDRESS OVERGARMENTS (BDO), PROTECTIVE MASK, GLOVES AND BOOTS, CONTINGENCY FILTERS, LBE, AND SOFT CAPS! NO WEAPONS REQUIRED. PLATOON SHOULD REPORT NLT 130001R JAN 93 TO NORTH FT BELVOIR, VA, BLDG #2264; DAYTIME POC IS MR. LOVE (703) 605-5009/6009 OR FT BELVOIR OPNS CENTER, EXT (703) 605-3370. AFTER DUTY HOURS CONTACT STAFF DUTY OFFICER AT

3. PLATOON IS ATTACHED TO THE SRF COMMANDER FOR A PERIOD OF APPROXIMATELY 1 WEEK. CDR MILITARY DISTRICT WASHINGTON WILL PROVIDE CLASS I AND III.

4. TDY FOR SOLDIERS IS AUTHORIZED. ALL COSTS FOR THIS MISSION ARE REIMBURSABLE. HQDA WILL PROVIDE FUND CITE.

IMMEDIATE

PAGE: 1

BY:COMMANDER, USACBDA : 1-12-93 : 9:17 : COMMANDER, USACBDA-OPN SAFE REMOVAL EOC:# 5/ 5

IMMEDIATE

PAGE: 2

5. MILAIR NOT AUTHORIZED. GROUND MOVEMENT WILL BE METHOD OF
MOVEMENT.

6. XVIII ABN CORPS POC IS MAJ MATEER, DSN 236-0371/0372. POC FOR
SRF OPERATIONS IS MR. BOYD #202) 282-0634/0642. MDW SUPPORT POC IS
MAJ CERRUTTI, (202) 475-0544. HQDA POC IS LTC WABNER OR LTC COLEMAN,
DSN 223-4826.//

PAGE 03 RUEOHNAJ3354 UNCLAS

BT

#3354

NNNN

IMMEDIATE

PAGE: 2

SENT BY: COMMANDER, USACBDA ; 1-12-93 : 9:16 ; COMMANDER, USACBDA-OPN SAFE REMOVAL EOC:# 3 / 5

0603

IMMEDIATE

DATE: 012
TIME: 1320

12 January 93 (0603)Y
1 Cy Reading File
ACTION: ANSCB-CM
INFO: ANSCB-CB

OTTUZYUW RUEADWD3063 0112321-UUUU--RUEANEW.

ZNR UUUUU

O 112300Z JAN 93

FM DA WASH DC//DAMO-ODD-CAT//
TO RUKLDAR/CDR AMC ALEX VA//AMCOC-LB/AMCCB//
INFO RUCDNPB/CDRPBA PINE BLUFF AR //CDR//
RUEANEW/CDRCBDA AFG MD//AMCCB-CB//

BT

UNCLAS

CDAF PASS TO SRF/DSF CDR WASHINGTON D. C. FOR INFO

SUJECT: TASKING FOR DEPUTY ON SCENE COORDINATOR

1. SERVICE RESPONSE FORCE (SRF) CDR REQUESTED BY NAME SUPPORT FOR A DEPUTY ON SCENE COORDINATOR TO SUPPORT OPERATION AT THE CHEMICAL EVENT IN WASHINGTON D. C.
2. DR. JIM BACON, PINE BLUFF ARSENAL IS THE REQUESTED INDIVIDUAL TO SUPPORT THIS REQUIREMENT. REQUEST DR. BACON PROCEED AS SOON AS POSSIBLE TO WASHINGTON D. C. NOTIFY SRF OPERATIONS FOR DETAILS.
3. ALL COSTS FOR THIS MISSION ARE REIMBURSEABLE. HQDA WILL PROVIDE FUND CITE.
4. POC FOR SRF OPERATIONS IS MR BOYD (202) 282-0634/0642. HQDA POC IS LTC COLEMAN OR LTC WAGNER, DSN 223-4827/6.

BT

0603

NNNN

IMMEDIATE

PAGE: 1

Received: from cbda9.apgea.army.mil by cbda7.apgea.army.mil id aa05952;
Date: 11 Jan 93 10:12 EST
From: Mon, 11 Jan 93 10:12:36 EST
To: Y. Prescott Ward <fpward@cbda9.apgea.army.mil>
Subject: [Marguerite E. Brooks: Resend DC Results]
Message-ID: <9301111012.aa17995@cbda9.apgea.army.mil>

----- Forwarded message # 1:

Received: from cbda6.apgea.army.mil by cbda9.apgea.army.mil id aa22009;
Date: 11 Jan 93 8:32 EST
From: Mon, 11 Jan 93 8:32:29 EST
To: Marguerite E. Brooks <mbrooks@cbda6.apgea.army.mil>
Subject: Resend DC Results
Message-ID: <9301110832.aa21137@cbda6.apgea.army.mil>

After analysis of each of the D.C. samples the following conclusions have been reached:

Pig #1 samples contain compounds related to the vesicant Lewisite (L), including its hydrolysate chlorovinylarsenic acid (CVAA) and/or intact L. It should be noted that both are hazardous compounds.

Pig #2 samples contain not only the intact vesicant DM, but also its various degradation products.

Pig #3 samples contain not only the intact lacrymator CN, but also its various degradation products.

Pig #5 samples contain only innocuous materials.

Additional definitive studies may further elucidate the wide variety of trace level compounds and could identify relative or approximate concentrations of the cited agents if required.

William T. Boundary
Paul C. Boesla
Raymond E. Bond
J. Michael Lochner
Stephen G. Pleva
Dennis K. Rohrbaugh
Leonard J. Szafraniec
Linda L. Szafraniec

Analysis Team

----- End of forwarded messages.

Pass to Ken Boyd

SWS

TOTAL P.01

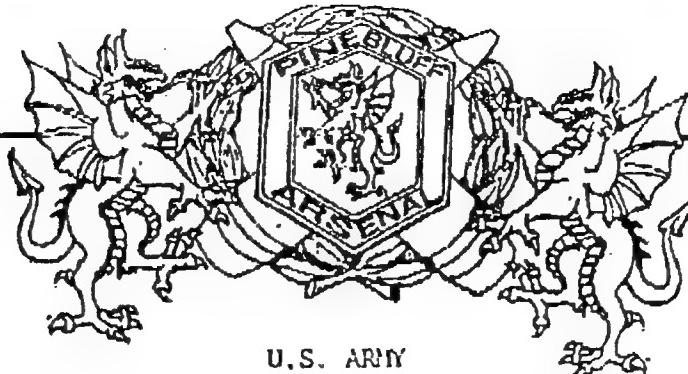
Pig #1 Broken glass from jars or carboys (RT pile)

Pig #2 1 Glass test tube with dark solid (RT pile)
2 White powder from base of 75mm (RT pile)
3 White solid from base of 75mm (RT pile)
4 Suspect green soil clump? (RT pile)

Pig #3 1 Modified PD fuze (75mm) (pile A)
2 Leatherman tools used on fuze (possibly
contaminated)
3 Sampling vial

Pig #4 Sloshing round (still on site) 75mm

Pig #5 1 Suspect dirt with moldy smell (pile A)
2 Suspect solid with pink color and foam texture
3 Suspect white solid from ground (layer)

U.S. ARMY
ARMAMENT, MUNITIONS AND CHEMICAL

COMMAND

FINE BLUFF ARSENAL

PINE BLUFF, ARKANSAS

DIRECTORATE OF ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT

COMMERCIAL FAX#: (501) 540-2818
VERIFY#: (501) 540-2800DSN FAX#: 966-2818
VERIFY#: 966-2800BRIG. GEN. GEORGE FRIEL
TO: On-Scene Cdr, Operation DATE: 12 JAN 93
SAFE REMOVALDSN: _____ FAX: 202/282-0728CLASSIFICATION: UU NO. PGS. WITH HEADER SHEET: 2PRECEDENCE: PP

REMARKS:

PLEASE FORWARD to BG FRIEL as
soon as possible.
Copy will be furnished to COL JACKSON.

FROM: Wendell FortnerOFFICE: SMCPB-EMPHONE NO: 501/540-2800RELEASER'S SIGNATURE: Susan Singleton

Space Below For Communications Center Use Only

DEPARTMENT OF THE ARMY
PINE BLUFF ARSENAL
PINE BLUFF, ARKANSAS 71602-9500REPLY TO
ATTENTION OF:
SMCPB-EM

12 January 1993

MEMORANDUM FOR On-Scene Commander for Operation Safe Removal

SUBJECT: Permit Modification at Pine Bluff Arsenal

1. The State of Arkansas has telephonically notified Pine Bluff Arsenal that the letter approving the modified storage for liquid filled items being removed at the Spring Valley site will be prepared today, 12 January 1993.
2. The State authorized the labeling and manifest preparation. However, shipment should be held until the letter is signed.
3. Pine Bluff Arsenal also received a permit, 11 Jan 93, authorizing the transportation of hazardous waste in the State of Arkansas by air only. A copy of the permit was faxed to you on 11 Jan 93.

WENDELL L. FORTNER
Director/Environmental
and Natural Resources
Management

CF:
Colonel Jackson

SENT BY: COMMANDER, USACBDA : 1-12-93 : 11:25 : COMMANDER, USACBDA-OPN SAFE REMOVAL EOC:# 1/ 1

C30A
B1A
12M/L

0645

IMMEDIATE

DATE: 012
TIME: 1531
12 January 93(0645)Y
1 Cy Reading File
ACTION: AMSCB-CM
INFO: AMSCB-CG

OTTUZYUW RUEADWD4532 0121513-UUUU--RUEANEW.

ZNR UUUUU

O 121500Z JAN 93

FM DA WASH DC//DAMO-ODD-CAT//

TO RUWTNFH/CDR HSC FT SAM HOUSTON TX//HS03-30//

INFO RUKLDAR/CDR AMC ALEXANDRIA VA//AMC03/AMC0C-LG/AMCCB//

RUEANEW/CORUSAEEHA APG MD //HSB-7//

RULNAPG/CDR CBDA APG MD//AMSCB-CG//

RUKGNOW/CDR USA MDW FT MCNAIR WASHINGTON DC//ANCS/ANOP-OP//

RUEANEW/PM CML DEMIL APG MD//SAILE-PM/SAILE-MS//

RUKGNBA/CDRUSANCA FT BELVOIR VA //MONA-BU/MONA-CM//

RUEADWD/DA WASHINGTON DC//DAMO-SW/SF1L-CD/CACS-SF/DASG-HCG//

BT

UNCLAS

SUBJECT: SUPPORT FOR CHEMICAL INCIDENT

1. THIS MESSAGE CONSTITUTES FORMAL TASKING FOR USAEHA TO PROVIDE SUPPORT TO THE SERVICE RESPONSE FORCE (SRF) COMMANDER IN WASHINGTON D.C. MISSION INCLUDES TECHNICAL SUPPORT FOR THE DEVELOPMENT OF A SAMPLING STRATEGY TO ASSURE SAFETY OF THE RECOVERY SITE FOLLOWING REMOVAL OF RECOVERED MUNITIONS AND MATERIAL AND ON-SITE TECHNICAL ASSISTANCE FOR SAMPLING OPERATIONS AS REQUIRED.
2. ALL COSTS FOR THIS MISSION ARE REIMBURSEABLE. HQDA WILL PROVIDE

PAGE 02 RUEADWD4532 UNCLAS

FUND CITE.

3. DIRECT COORDINATION IS AUTHORIZED BETWEEN USAEHA AND THE SRF CDR.

4. POC FOR SRF OPERATIONS IS COL KENISON. (202) 232-0634/0642. HQDA POC IS LTC COLEMAN OR LTC PERRY, DSN 223-4824.

BT

#4532

NNNN

IMMEDIATE

PAGE: 1

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JAN-13-1993 11:37 FROM CPDEC PFG, MD SMCCR-FI

TO

6120122620726

P.23

13 JAN 93 0507 Y
1 CY READING FILE
ACTION: AMSCB-CM

CMDA

IMMEDIATE

DATE: 013
TIME: 1302

0705

OTTUZYUW RUEADWD5342 0122219-UUUU--RUEANEW.

ZNR UUUUU

D 122117Z JAN 93

FM DA WASHINGTON DC //DAMO-ODD-CAT//
TO RHCGSRB/CDR FORSCOM FT MCPHERSON GA //FCJ3-OC/OV/TN//
INFO RUCDNLR/CDR 122 ARCOM LITTLE ROCK AR // CDR//
RUWTROA/CDR IIICORPSARTY FT SILL OK //CDR//
RUEANEW/CDR CBDA EDGEWOOD ARSENAL MD //AMSCB-CS//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-DC//
RUEANEW/PM CML DEMIL AFG MD//SAILE-PM/SAILE-MS//

RUCDNPB/CDRPBA PINE BLUFF AR //CDR//

BT

UNCLAS

SUBJECT: AVIATION SUPPORT FOR CHEMICAL INCIDENT

1. THIS MESSAGE CONSTITUTES FORMAL TASKING TO PROVIDE 2 CH47 AND 1 UH-1 HELICOPTERS TO SUPPORT SERVICE RESPONSE FORCE (SRF) OPERATIONS IN WASHINGTON DC. MISSION IS TO TRANSPORT RECOVERED SUSPECT CHEMICAL AMMUNITION FROM ARRIVAL AIRFIELD IN PINE BLUFF, AR TO PINE BLUFF ARSENAL.
2. CREWS WILL BRING PROTECTIVE MASKS WITH CONTINGENCY FILTERS INSTALLED, AND PROTECTIVE OVERGARMENTS. FOR DETAILS OF FLIGHT MISSION POC IS NEIL POBANZ, AMCCOM, DSN 793-4692/3354.

PAGE 02 RUEADWD5342 UNCLAS

3. INCREMENTAL COSTS ASSOCIATED WITH THIS OPERATION (PROJECT NO. CO3DC0918-01) WILL BE REIMBURSED BY DEFENSE ENVIRONMENTAL RESTORATION PROGRAM (DERP) FUNDS PROVIDED TO THE FORMERLY USED DEFENSE SITES (FUDS) PROGRAM. RECORD COSTS ON STANDARD FORM 1080 IDENTIFYING POC. FORWARD SF1080 TO: MR GLENN EARHART, CENAB-PD-P, PO BOX 1715, BALTIMORE, MD 21203-1715. VOICE: (410) 962-3369; FAX: (410) 962-9312

BT

#5342

NNNN

IMMEDIATE

PAGE: 1

FACSIMILE TRANSMITTAL HEADER SHEET
 Per Sec 6 of the FMSR, and AR 25-11; the transmittal agency is COMSAC.

COMMANDING OFFICE	NAME/ OFFICE SYMBOL	OFFICE TELEPHONE NO. (AUTODIAL/CODED.)	FAX NO. (AUTODIAL/CODED.)
FROM: CDRAMC ALEX VA//	MST✓ AMCOC-CB		
TO: SRF OC	KEN Bayt		202 282 0728
CLASSIFICATION	PRECEDENCE	NO. PAGES (Including this Header)	DATE-TIME
U	P	✓	13/04/0 5pm 93
REMARKS Per YOUR REQUEST			
Space Below For Communications Center Use Only			

DA FORM 3818-R, JUL 80

DA FORM 3818-R, AUG 72 IS OBSOLETE

P.S. Don't forward to FAX
 Copy of your SIMTEL TO
 COMMAND GROUP FAX TOWNSHIP

UNCLASSIFIED

AMCCB

POINT PAPER

13 Jan 92

SUBJECT: Operation Safe Removal

PURPOSE: To provide information on Operation Safe Removal.

FACTS:

- o Continued operations in the pit expanding one wall slightly. Still working to remove rounds protruding from side walls.
- o COE explored pit area with magnetometer results inconclusive.
- o Number of suspect rounds remains at 19-liquid filled, 39 solid filled, total 58.
- o Movement to Pine Bluff Arsenal planned for tomorrow (14 Jan 93) with priority to liquid filled items.
- o Wrap-up date and pass to Phase 2 TBD.
- o Weekend schedule TBD sometime 15 Jan 93 (Friday).

REleased BY: *[Signature]*
L.G. MASON
CH, AMCOG
G2C60
44041

MAJ AGOGINO
AMCCB
G2C60
44045

UNCLASSIFIED

146

FACSIMILE/DACOM TRANSMITTAL HEADER SHEET

COMMAND	OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASEER'S SIGNATURE	
RDN: LTC Coleman AOC	DAMO-ODO	693-4827	J.M. Coleman	
SRF. Ken Boyd	OPNS	DATE-TIME 131245	MONTH JAN	YEAR 93
CLASSIFICATION U	PAGES 2	PRECEDENCE P	FAX • (202) 282-0728	VERIFY •

REMARKS: For your review. Will send on order

CONTACT _____ AT _____
RANK - NAME _____ TELEPHONE NUMBER _____

UPON RECEIPT OF THIS FACSIMILE MESSAGE FOR PICKUP, ADDRESSEE IS REQUESTED
TO ACKNOWLEDGE RECEIPT TO THE ORIGINATOR AT THE ABOVE TELEPHONE NUMBER.

SPACE BELOW IS FOR COMMUNICATIONS CENTER USE

MESSAGE NUMBER	TIME OF TRANSMISSION	TIME OF RECEIPT
OPERATOR NUMBER	VERIFICATION INITIALS	DUTY OFFICER'S INITIALS

P/D REMARKS _____

STD STU 232... AV 224-3086 OR 223-7233
D/D VERIFICATION... AV 223-2291/2292

P/D TELETYPE... AV 227-3573 (UNCLAS ONLY)

DA FORM 3918-R

JAN-13-1993 12:46 FROM ADC CRISIS CENTER

TO 912022836726 P.02

UNCLASSIFIED

01 01

JAN 93 00 00 UUUU

DA WASHINGTON DC //DAMO-000-CAT//
CDR AMC ALEXANDRIA, VA//AMCCG/AMCDC-LG/AMC/CB//

INFO

CDR AMCCOM ROCK ISLAND, IL//AMSMC-CG//
CDR PBA PINE BLUFF, AR//CDR//

UNCLAS

SUBJECT: CHEMICAL MUNITIONS HANDLING WARNING ORDER

1. THIS MESSAGE CONSTITUTES FORMAL TASKING TO MAKE PREPARATIONS AND CONDUCT DRILLING, SAMPLING AND ANALYSIS FROM LIQUID FILLED CHEMICAL MUNITIONS SENT TO PBA FROM OPERATION SAFE REMOVAL, WASHINGTON, D.C.
2. CONTACT MR. KEN BOYD, SRF OPERATIONS (202) 222-3792/0524 FOR MUNITIONS FILL SPECIFICATIONS.
3. INCREMENTAL COSTS ASSOCIATED WITH THIS OPERATION (PROJECT NO. COEDCD912-01) WILL BE REIMBURSED BY DEFENSE ENVIRONMENTAL RESTORATION (DERP) FUNDS PROVIDED TO THE FORMERLY USED DEFENSE SITES PROGRAM (FUDS) PROGRAM. RECORD COSTS ON STANDARD FORM 1080 IDENTIFYING POC. FORWARD SF1080 TO: MR GLENN EARHART, CENAB-PD-P, PO BOX 1128, BALTIMORE, MD 21203-2726. VOICE: (410) 562-3384; FAX: (410) 562-7312.

M.T. BROWN, MAJ GS- DAMO-000
DSN 223-4827

S.E. WILSON, COL GS DSN 225-5535

UNCLASSIFIED

S:\AVIASPT.DBF-- ID# 2

13 Jan 1993

Operation Safe Removal
Transportation Plan - Liquid Filled Rounds

1. Situation

- a. Various liquid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in special containers which meet DOT requirements for air shipment.
- b. The rounds must be sent to an appropriate military installation for storage until final disposition can be accomplished.

c. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Military District of Washington
- (3) Pine Bluff Arsenal
- (4) U.S. Army Armament Munitions & Chemical Command
- (5) Edgewood Research Development Engineering Center
- (6) Grider Field, Pine Bluff Arkansas
- (7) Dept of Health & Human Services
- (8) Department of Transportation

2. Mission. To safely and expeditiously move suspect liquid filled rounds from the Spring Valley site from which they were recovered to Pine Bluff Arsenal, Pine Bluff, AR.

3. EXECUTION

a. Concept of movement. Liquid filled rounds will be moved by air in accordance with Department of Transportation (DOT) requirements under the control of the Technical Escort Unit to a transshipment site (Andrews Air Force Base) and ultimately to Pine Bluff Arsenal.

(1) The movement will be conducted in a manner so as to minimize the risk to the workers, the public, and the environment.

(2) An Arkansas hazardous waste manifest will be used to document movement of the waste from Spring Valley to Pine Bluff Arsenal.

(3) A technical escort officer (TEO) will be responsible for the custody, safety, and security of the material during the movement. The technical escort officer will be assisted by one other escort person.

b. Phase A - Spring Valley to Transshipment Site.

(1) Packaging.

(a) Containerization. Liquid filled rounds will

be packaged and certified in accordance with DOT requirements for air shipment.

(b) Configuration. Securing of the load within the aircraft will be in accordance with FAA requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Army pilots.

(3) Flight plan. The aircraft will fly using established Washington, D.C. air corridors to avoid populated areas to the maximum degree possible. The precise route is as follows: from Spring Valley directly to Clara Barton Parkway, then north following Clara Barton parkway to route 495, then east following 495 to route 95, then south follow following 95 to route 50; then south and west along 50 to the junction of route 50 and Landover Road then south to the Andrews AFB strip.

(4) Documentation. An Arkansas hazardous waste manifest must be prepared prior to shipment.

(5) Contingency Planning. A chase helicopter will fly with the load carrying helicopter. The chase helicopter will carry three USA Technical Escort personnel, trained in emergency response. The personnel will carry with them absorbent material, plastic, bleach and water.

c. Phase B - Holding/Transfer at Transshipment Site

(1) Security. Special security will be provided by the technical team accompanying the shipment in the escort helicopter. General security will be provided by Andrews AFB security personnel.

(2) Fire. Fire support will be provided by Andrews AFB. It will be in a standby mode during landing, loading and takeoff.

(3) Medical. Medical support will also be provided by Andrews AFB. It will be a standby mode during landing, loading, and takeoff.

(4) EOD. EOD Support will be provided by the Technical Escort Unit. These people are specially trained in both explosive and decontamination techniques

d. Phase C - Transshipment Site to Grider Field, Pine Bluff, Arkansas

- (1) Transportation. Transportation will be by C23 Army aircraft operated by Army pilots.
- (2) Flight path. Although the precise route may very because of weather, the proposed route is as follows: from Andrews AFB to Pope AFB, North Carolina, then to Redstone Arsenal, Alabama, and then to Pine Bluff, Arkansas.
- (3) Support Enroute. Both Pope AFB and Redstone Arsenal have contingency plans for decontamination should problems occur. In addition, escort personnel aboard the aircraft have been trained in explosive and decontamination procedures.

e. Phase D - Grider Field to Pine Bluff Arsenal

- (1) Transportation. Transportation will be by army rotary wing aircraft operated by army pilots. In addition to the load carrying aircraft, there will be a chase aircraft with technical and security personnel.
- (2) Flight path. The aircraft will fly directly from Grider Field to Pine Bluff Arsenal avoiding population concentrations.
- (3) Security. Security onsite will be provided by municipal authorities in conjunction with Pine Bluff Arsenal security personnel.
- (4) Fire. Fire support will be provided by Grider airfield. It will be on standby during landing, loading and takeoff.
- (5) Decontamination. Escort personnel are trained in decontamination procedures.
- (6) Medical. Medical support will be provided via airfield resources.

f. Phase E - Receipt at Pine Bluff Arsenal.

- (1) Security. Security will be provided by Arsenal personnel.
- (2) Authorization. The PBA RCRA permit was modified to allow storage of the specific materials taken from the Spring Valley site.
- (3) Storage. Items will be stored in permitted hazardous waste storage facilities.
- (4) Documentation. Hazardous waste manifest will be

annotated to assure accountability.

4. Service Support.

a. Regulatory Approvals.

(1) PBA Permit Modification. Pine Bluff Arsenal modified their RCRA permit in order to accommodate the storage of these items.

(2) The Army obtained a generators identification number from the District of Columbia to assure full accountability for items recovered during removal operations.

(3) The CBDA obtained DOT approval for the adequacy of their special single round containers for air shipment.

b. General Support.

(1) Security at Spring Valley. Washington DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington DC has provided excellent support during the hours of recovery operation.

(3) Medical Support at Spring Valley. Washington DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure.

a. Rotarywing aircraft. The Army will use UH-1 and CH-47 aircraft for the short flights in populated areas, especially Washington DC, because of their ability to land safely despite engine failure. If such an event should occur, the escort helicopter will land near the downed aircraft, will offer life saving, decontamination or other emergency service and will secure the site until military response units arrive. Technicians riding in the escort helicopter are trained in emergency procedures.

b. Fixed wing aircraft. The Army will use either C-23 or C-130 aircraft for long distance flights. The C-23 will be used as the aircraft of choice because of their exceptional safety record. There has never been an operational mishap associated with this aircraft since it was acquired by the the military services. Both planes have multiple engines, thereby allowing them to reach a nearby airfield in the event of engine failure. However, if a mishap were to occur, response forces would be sent from the nearest military installation. The following ordnance

detachments along the route have been alerted:

149th Detachment....Andrews AFB
18th Detachment....Ft Bragg
142nd Detachment....Ft McClellan

(2) Aircraft Fire. The escorts aboard the load carrying helicopter and aircraft are trained in firefighting as well as emergency decontamination enflight.

(3) Container leak. It is highly unlikely that packaging containers will leak. All munitions are surrounded in absorbant material within special containers, and configured for maximum safety. All have been tested in accordance with DOT standards and have been used without problems. In the unlikely event of a leak the escort technicians riding with the cargo aircraft are trained in decontamination procedures and will be able to control the situation until the aircraft can land.

5. Command and Signal.

a. Phase A - Spring Valley to Transshipment Site. During the initial movement, command and control will be provided by the SRF Headquarters at Spring Valley.

b. Phase B - Holding/Transfer at Andrews AFB. Command and control will be provided by SRF Headquarters at Spring Valley.

c. Phase C - Transshipment Site to Grider Field, Pine Bluff, AR. During shipment to Pine Bluff, command and control will be provided by air traffic controllers enroute. In addition, progress will be monitored by the SRF.

d. Phase D - Grider Field to Pine Bluff Arsenal. During the shipment from Grider Field to PBA, command and control will be provided by PBA EOC. Progress will be monitored by the SRF.

e. Phase E - Upon receipt of the items at PBA, command and control will be provided by PBA EOC. Progress will be monitored by the SRF.

Operation Safe Removal Transportation Plan - Liquid Filled Rounds

GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

OFFICIAL:


KENNETH R. BOYD
Director, Operations.

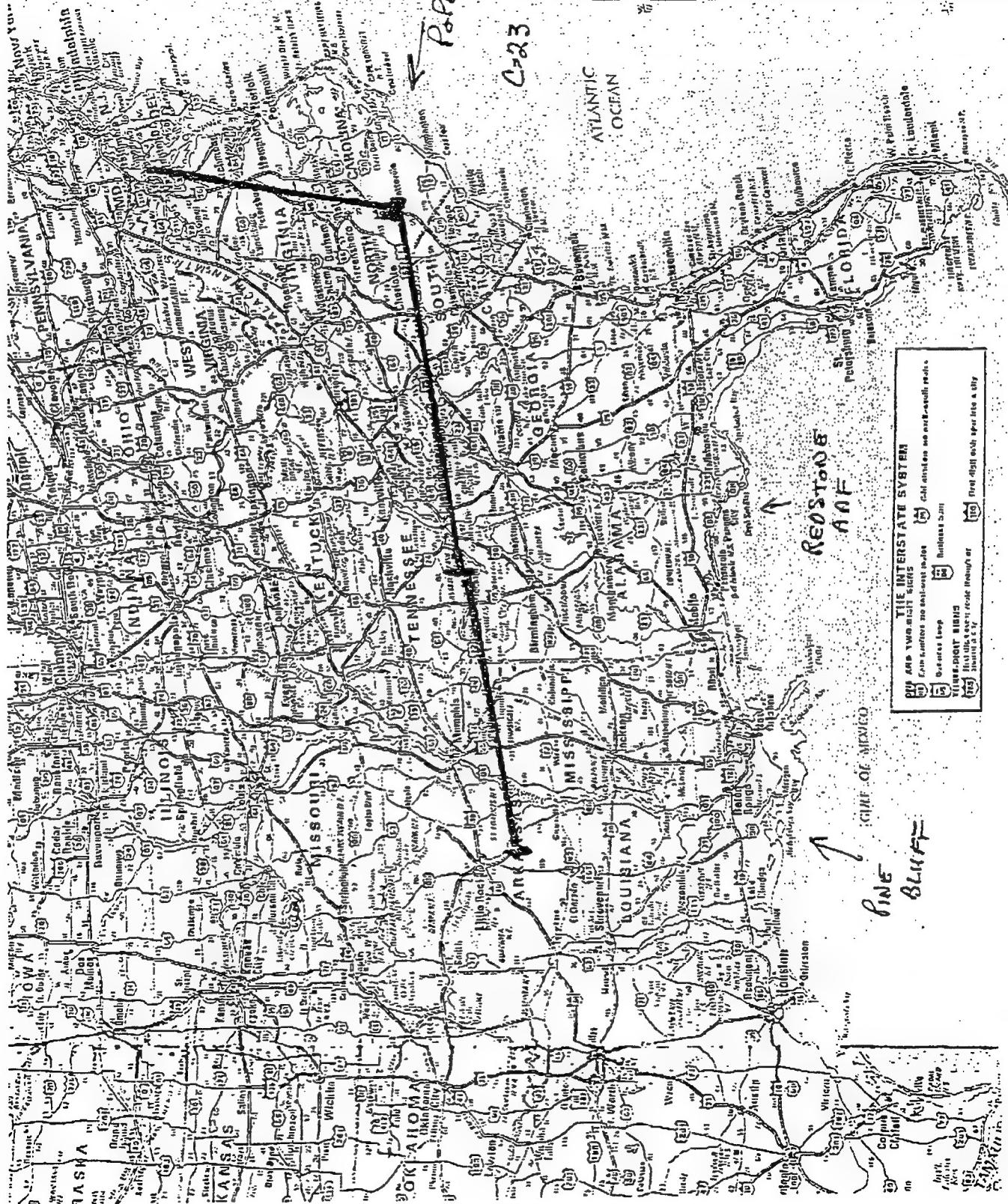
C-23 Routes

Paper AFB

REO STONE
AN

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155



U.S. Citizen's Visiting Canada
Canadian Participants are not required to obtain a Canadian visa. However, they may be required to obtain a U.S. visa if participating in shows or exhibitions at the international exhibition in Atlanta, Georgia. All U.S. citizens planning to travel to Canada via rail must obtain a Canadian visa. American citizens traveling by air to Canada do not require a Canadian visa. American citizens traveling by air to Canada from the United States do not require a Canadian visa if they are traveling for any purpose other than tourism. Canadian citizens traveling to Mexico, however, must obtain a Mexican visa. Tourists entering Mexico are required to have a passport and a return ticket for all purposes, except to wait the arrival of their Canadian friends from Mexico, or to visit Cousins of Mexico, or to travel

This article shows the utility of population synthesis to predict the impact of different interventions on the incidence of stroke.

UNCLASSIFIED

AMCOC-CB

POINT PAPER

14 Jan 93

SUBJECT: Operation Safe Removal

PURPOSE: To provide information on Operation Safe Removal.

FACTS:

- o 17 liquid filled projectiles were transported from the site via helicopter to Andrews AFB, and transshipped to Pine Bluff Arsenal via C23.
- o Work continues in the pit to recover munitions from the sidewall.
- o Enlargement of the pit will continue when another backhoe arrives on site.
- o Tech escort personnel are re-examining solid filled munitions to rule out potential liquid fills.
- o SRF Commander is considering closing down operations over the holiday weekend through the inauguration. Decision based on crew fatigue and citizen's desires.

RELEASED BY:


L.G. MASON
CH, AMCOC
G2C60
44041ACTION OFFICER: DOUG KOGER
AMCOC-CB
G2C60
44045

UNCLASSIFIED



U.S. ARMY
CHEMICAL AND BIOLOGICAL
DEFENSE AGENCY

From the:

Office of the Commander
U.S. Army Chemical and Biological Defense Agency
Edgewood Area
Aberdeen Proving Ground, Maryland 21010-5423

DSN Prefix - 584-XXXX

Commercial Prefix - (410) 671-XXXX

Fax Phone: Unclassified - 5398, Confirmation - 4361
Classified - 3108, Confirmation - 2933

FROM:	OFFICE SYMBOL	OFFICE TELEPHONE NO. (DSN/Comm.)	FAX NO. (DSN/Comm.)			
Dotty	AMSCB-CO	584-4361/ (410)671-4361				
TO:						
LT Taran						
CLASSIFICATION	PRECEDENCE	NO. PAGES (Including this Header)	DATE + TIME	MONTH	YEAR	RELEASER'S SIGNATURE
U	P	5	14	JAN	93	

REMARKS

LT Taran: Immediate message just delivered. 4 pgs follow.

SENT BY: COMMANDER, USACBDA : 1-14-93 : 15:37 : COMMANDER, USACBDA-OPN SAFE REMOVAL EOC# 2/ 5

ERUCC

CDR D-1/CB-C

IMMEDIATE

DATE: 014
TIME: 1527

13 January 93

1 Cy Reading File
ACTION: RUEADWD-OPR C

OTAUZYUW RUEANEWS907 0141923-UUUU--RUEANEW.
ZNR LIUUU
O 141828Z JAN 93
FM CDR SERVICE RESF FORCE WASH DC
TO RUCDNRFB/CDRFBA PINE BLUFF AR //SMCFF-CO/SMCPB-BR/SCBTE-DF
SMCPB-MM/SMCPB-PAC//
SMCPB-MM/SMCPB-PAC//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CO/AMSMC-SR/
AMSMC-TMA//
RUEBJFA/CDR 549 EDDCC FT MEADE MD //TMO//
RHDJAAA/CDR 149TH ORD DET ANDREWS AFB
RUWTNFA/CDR 546 EDDCC FT SAM HOUSTON TX //TMO//
RHCGGIL/CDR 547 EDDCC FT GILLEM GA //TMO//
RUEDHNA/CDR 18TH ORD DET FT BRAGG NC //TMO//
RUCDNRFB/CDR 52ND ORD DET PINE BLUFF AR //TMO//
RUEBBMA/CDR POPE AFB NC
RHDJAAA/CDR ANDREWS AFB MD
RUCDNRFB/CDR MCOM RSA AL //AMSMI-RA-FD//
ZEN/CDR TEU AFB MD //SCBTE-OP/SCBTE-CO/SCBTE-SS//
INFO RUEADWD/HQDA WASH DC //DAMO-SWS/DAMO-SWC/DAMO-SMA-EUD/
DACS-SF/
DAMO-ODL/SGPS-PSF/SAIB-TI/SFIL-CO/DAPF-HRE//

PAGE 02 RUEANEWS907 UNCLAS

DALO-TSP/SAILE-EDSH//

RUKGNBA/CDRUSANCA FT BELVOIR VA //MONAO-SU/MONA-CM//

RUKLDAR/CDR AMC ALEXANDRIA VA //AMDCB/AMCF-C//

RHCGSRB/CDR FORSCOM FT MCPHERSON GA //AFOD-DC/AFDP-TN//

ZEN/DIR ERDEC AFB MD //SCBRD-ODR-C//

ZEN/CDR USAUMDA AFG MD //SFIL-NSP/SFIL-CM//

SFIL-NSB//

BT

UNCLAS

SUBJ: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT

1. IN ACCORDANCE WITH PUBLIC LAWS 91-121/91-441, WE ARE DIRECTING THE U.S. ARMY TECHNICAL ESCORT UNIT TO CONDUCT AN EMERGENCY SHIPMENT OF HAZARDOUS WASTE SUSPECTED TO CONTAIN PHOSGENE (CG) AND TELLURIUM TETRACHLORIDE (FM) FROM SPRING VALLEY, WASHINGTON, DC TO PINE BLUFF

IMMEDIATE

FDRS,

PAGE: 2

IMMEDIATE

ARSENAL, AL.

2. CBDA CONTROL NUMBER: CBDA #93-01
3. NOTE: THE SCHEDULE OF EVENTS IS PURELY AN ESTIMATE. DUE TO THE TIME CONSTRAINTS ASSOCIATED WITH THIS EMERGENCY MISSION, INFORMATION CONTAINED HEREIN WILL BE UPDATED TELEPHONICALLY TO KEY ADDRESSEES. (SHOULD) DELAYS OCCUR, THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS

PAGE 03 RUEANEW3907 UNCLAS
WILL NOT CHANGE. ONLY THE TIMES AND DATES.)

4. TRANSPORTATION RELEASE NUMBER: NA
5. SHIPPING ORDER NUMBER: NONE
6. NAME OF CARRIER AND EXACT ROUTING:
A. UH-1 TAIL NUMBER 736, DEPART SPRING VALLEY, WASH, DC O/A 1015 EST, 14 JAN 93; ARRIVE ANDREWS AFB, MD O/A 1035 EST, 14 JAN 93;
DEPART ANDREWS AFB O/A 1105 EST, 14 JAN 93; ARRIVE SPRING VALLEY, O/A 1125 EST, 14 JAN 93; DEPART SPRING VALLEY, O/A 1200 EST, 14 JAN 93;
ARRIVE ANDREWS AFB O/A 1220 EST, 14 JAN 93.
B. C23 TAIL NUMBER 40470, DEPART ANDREWS AFB O/A 1300 EST, 14 JAN 93; ARRIVE POPE AFB, NC (REFUELING) O/A 1430 EST, 14 JAN 93;
DEPART POPE AFB O/A 1515 EST, 14 JAN 93; ARRIVE REDSTONE AAF, AL (REFUELING, RON) O/A 1630 CST, 14 JAN 93; DEPART REDSTONE AAF O/A 0830 CST, 15 JAN 93; ARRIVE GRIDER FIELD, PINE BLUFF, AR O/A 1000 CST, 15 JAN 93.
JAN 93; ARRIVE PINE BLUFF ARSENAL O/A 1405 CST, 15 JAN 93.
7. CAR OR OTHER VEHICLE NUMBER: NA
8. BILL OF LADING NUMBER: NA
9. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT 19

10. AUTHORIZATION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT 19
AUTHORIZED BY CDR, CBDA UP AR 50-6, PARA 5-3C(2), AND FUSBLI LAW

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REFERENCED IN PARA 1, THIS MESSAGE.

11. BRIEF DESCRIPTION OF CONTENTS AND METHOD OF PACKAGING:

A. BRIEF DESCRIPTION:

(1) 4.7 INCH SHELL, LIQUID FILLED, SUSPECT CG (4.27 LBS); SHELL IS
BURSTED AND CONTAINS 100 GMs OF EXPLOSIVE.
(2) 76MM SHELL, LIQUID FILLED, SUSPECT CG (1.32 LBS); SHELL IS

IMMEDIATE

PAGE: 4

IMMEDIATE

PAGE: 7

BURSTERED AND CONTAINS 70.9 GMS OF EXPLOSIVE.

(3) SMALL LIVENS PROJECTILE, LIQUID FILLED, SUSPECT FM (14 LBS):
PROJECTILE IS BURSTERED AND CONTAINS 45 GMS OF EXPLOSIVE.

(4) LARGE LIVENS PROJECTILE, LIQUID FILLED, SUSPECT OG (28.7 LBS):
PROJECTILE IS BURSTERED AND CONTAINS 95 GMS OF EXPLOSIVE.
PROJECTILE IS BURSTERED AND CONTAINS 95 GMS OF EXPLOSIVE.

B. PROPER SHIPPING NAME: AMMUNITION TOXIC, EXPLOSIVE 1.2L, PUSSEN
UN0020

C. PACKAGING: ITEM IS PLACED INTO A 4-6 MIL PLASTIC BAG WHICH IS
CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE
SIZED SINGLE ROUND CONTAINER WITH VOIDS FILLED WITH VERMICULITE.
THE CONTAINER IS SEALED BY A FLANGE PLATE. TWO CONCENTRIC NUTS & SR,
AND 6 BOLTS. THE METAL CONTAINER IS PUT INTO A DOT 1RR WOODEN
BOX. SOME CONTAINERS MAY CONTAIN MORE THAN ONE ITEM.

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D. CONFIGURATION:

SRCH	TYPE	SRC	ITEM	NO ITEMS/SRC	WT	CU FT
002	X		LIVENS	2	226	5.8
003	155		75MM	2	92	3.0
004	XX		LIVENS	2	285	7.5
005	8"		75 MM	2	120	3.4
006	8"		8.7"	1	139	3.8
007	XX		LIVENS	2	289	7.5
008	X		LIVENS	1	215	5.9
009	X		LIVENS	1	232	5.4
010	XX		LIVENS	2	292	7.3
011	155		75MM	2	91	3.0

11. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC:
1015 EST, 14 JAN 93.

12. DATE AND TIME OF ARRIVAL AT GRIDER FIELD, FORT DRUM, NY:
1030 CST, 15 JAN 93.

13. NAME, RANK AND SSN OF TECHNICAL ESCORTS:

CPT SUSAN COVELL, (T-2)
WLG LESTER BROWN,
WGR DON RANEY,

IMMEDIATE

BY:COMMANDER, USACBDA : 1-14-93 : 15:38 : COMMANDER, USACBDA-OPN SAFE REMOVAL EOC:# 5/ 5

PAGE: 4

IMMEDIATE

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WG9 JEFFERY HATCHER,

14. THE POC AND STORAGE CUSTODIAN AT PINE BLUFF ARSENAL IS: MR.
DAVID HJDMAN, MATERIEL MANAGEMENT, SMCPR-MM, DSN 966-3422.

15. THE POC FOR THIS ACTION IS MRS. BETTY PETERSON, OPERATION SAFE
REMOVAL, (202) 283-0634/0641.

BT

#3907

NNNN

PAGE: 4

IMMEDIATE

CPD
NYEM

PRIORITY

DATE: 015
TIME: 1329

15 January 93 (0915) Y
1 Cy Reading File
ACTION: AMSCB-CM

PTTUZYUW RHCGAM00132 0150142-UUUU--RUEANEW.

ZNR UUUUU

P R 142055Z JAN 93

FM CDRFORSCOM FT MCPHERSON GA//FCJ3-S//
TO RUCLBFA/CDRIIICORPS FT HOOD TX//AFZF-GT-PO//
INFO RUEADWD/DA WASHINGTON DC//DAMO-ODO-CAT//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL//AMSMC-OC//
RUEANEW/CDR CBDA EDGEWOOD ARSENAL MD//AMSCB-CG// ✓
RUFPBPA/CDRPBA PINE BLUFF AR//CDR// ✓
RUEANEW/PM CML DEMIL ABERDEEN PROVING GROUNDS MD//SAILE-PM/MS// ✓

BT

UNCLAS

MSGID/GENADMIN/FORSCOM FCJ3-OT/CT 93-01-33//
SUBJ/AVIATION SUPPORT FOR CHEMICAL INCIDENT//
REF/A/MSG/HQDA DAMO-ODO-CAT/122117ZJAN92//

AMPN/SAB//

POC/WAGNER/MR/PRIPHON: DSN 367-6085/-/FORSCOM FCJ3-OT//

RMK5/T: REF FAXED TO YOU. TASKED FORSCOM TO PROVIDE 2 CH-47 AND 1 UH-1 HELICOPTERS TO TRANSPORT RECOVERED SUSPECTED CHEMICAL AMMUNITION FROM ARRIVAL AIRFIELD IN PINE BLUFF AR TO PINE BLUFF ARSENAL. REF IS YOURS FOR ACTION. DIRECT COORDINATION IS AUTHORIZED WITH AMCCOM POC TO DETERMINE ACTUAL SUPPORT DATES AND OTHER

PAGE 02 RHCGAM00132 UNCLAS

REQUIREMENTS.//

BT

#0132

NNNN

PAGE: 1

PRIORITY

163



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF

COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

14 Jan 1993

Operation Safe Removal
Verification Plan for Termination of the Emergency Response Phase

1. SITUATION.

a. On 5 January 1993 while digging a trench to connect sewage to a new home, a commercial real estate developer discovered a cache of potentially hazardous explosive and chemical munitions at a formerly used defense site located in the Spring Valley section of Washington, D.C.

b. The Army responded by activating a Service Response Force (SRF) and developed a two phase operation plan to approach the situation.

c. The emergency response phase (Phase I) included removing, testing, packaging, and transporting potentially hazardous munitions from Spring Valley to safe storage locations for safe disposal.

d. The recovery/remediation phase (Phase II) is expected to be accomplished by the U.S. Army Corps of Engineers, Baltimore District and will consist of remedial operations to restore conditions at and in the vicinity of the site to an acceptable environmental state.

c. The purpose of this plan is to establish criteria for verifying termination of the emergency response phase and the beginning of the recovery/remediation phase.

d. Parties involved:

- (1) Service Response Force
- (2) Municipal Authorities of Washington, D.C.
- (3) Emergency Response Team of Region III, EPA
- (4) Baltimore District of the Corps of Engineers
- (5) U.S. Army Environmental Hygiene Agency
- (6) Technical Escort Unit
- (7) Roy F. Weston Environmental Consulting Firm
- (8) Edgewood Research, Development, Engineering Center
- (9) Dept of Health and Human Services (HHS)
- (10) Dept of Labor Occupational Safety & Health Admin

2. MISSION. During the emergency response phase, the SRF is responsible for taking those actions necessary to control the site, reduce imminent risk, ensure health and safety, contain and render safe hazardous materials, protect the environment, and promote public confidence in the emergency response operations. Concurrent with removal actions, the SRF will obtain a representative body of reliable information to describe the risk and its effects on the environment.

a. Concept of Operations. The SRF personnel will take necessary actions to recover, package, and remove exposed potentially explosive or chemically hazardous munitions or debris. Monitoring personnel, by taking air, water, and soil samples, will collect, analyze, and report potential contamination information to assure safety of the recovery operations and to serve as the basis for verifying the absence of imminent risk.

b. Criteria for termination of the Emergency Response Phase. The emergency response phase will continue until the SRF Commander has determined that the threat of imminent risk has been eliminated. The following criteria, if met, will help to establish that the emergency response phase may be concluded when:

(1) All liquid or solid filled munitions and other objects or debris located in the suspected disposal pit which are also suspected to contain or be contaminated by chemical agents are removed, containerized, and rendered safe for transportation.

(2) All of the above liquid and solid filled munitions and material are removed from the Spring Valley residential area.

(3) The SRF Commander determines that the soil in, removed from, and immediately surrounding the excavated area poses no imminent risk of harm. At least 14 soil samples shall be taken and shall be tested for substances listed below. A determination that the soil poses no risk of imminent harm shall not be made unless test results reflect less than the following levels:

Mustard	0.06	mg/gram of soil
Lewisite	0.06	mg/gram of soil
Adamsite	2.6	mg/gram of soil
Arsenic	0.097	mg/gram of soil
Chloroacetophenone (CN)	1.57	mg/gram of soil
Cyanogen Chloride	3.12	mg/gram of soil
Chloropicrin	3.5	mg/gram of soil
Phosgene	2.07	mg/gram of soil
Mercury	1.6	mg/gram of soil
Lead	0.50	mg/gram of soil
Chromium VI	3.9	mg/gram of soil

(or to soil baseline level)

c. The Commander, Service Response Force and On Scene Coordinator will:

(1) Develop criteria for verifying the termination of the emergency phase.

(2) Complete the actions and conduct the sampling required.

(3) Determine, in coordination with local and federal agencies, when criteria have been met.

(4) Coordinate with the Baltimore District, Corps of Engineers to assure a smooth transition to Phase II.

d. The Deputy On-Scene Coordinator will:

(1) Coordinate the results with local and federal authorities to verify the absence of imminent risk.

(2) Host a transition information exchange meeting between key personnel from Phase I, Phase II, Federal, Civil and Local authorities prior to the conclusion of Phase I.

e. The Commander of the Baltimore District will:

(1) Be prepare to initiate Phase II activities.

(2) Coordinate with the Service Response Force to assure a smooth transition.

4. SERVICE SUPPORT

a. The U.S. Army Environmental Hygiene Agency will evaluate the overall situation and develop a constituent list, maximum constituent level, and sampling strategy for verifying the absence of imminent risk in the soil.

b. The Emergency Response Team of EPA Region III will oversee the sampling program.

c. The Edgewood Research, Development and Engineering Center will conduct air space monitoring to assure the absence of chemical surety material and thereby protect laboratory employees from accidental exposure to chemical warfare agents.

d. The Edgewood Research, Development, and Engineering Center will conduct laboratory analysis for mustard, lewisite, and total arsenicals.

e. The U.S. Army Environmental Hygiene Agency will conduct laboratory analysis for hydrogen cyanide, cyanogen chloride, chloropicrin, and phosgene. This laboratory will also conduct total metals and semivolatiles on approximately 20% of the samples.

f. Roy F. Weston Laboratories will conduct analysis for total metals and base, neutrals and acids (BNA) (equivalent to semivolatiles) in split samples which duplicate those cited in paragraphs d and e above.

g. The Service Response Force will provide the Baltimore District with the following:

- (1) A detailed list of recovered munitions.
- (2) The data acquired during soil sampling.
- (3) Fact sheets concerning the potential contaminants.
- (4) A roster of Spring Valley residents by name and address.
- (5) Copies of topographic and archeological products as required.
- (6) Other data as required.

5. COMMAND AND CONTROL.

a. Management of the sampling program will be accomplished by the Service Response Force HQ during the emergency phase.

b. Management of subsequent sampling will be accomplished by the agency responsible for optimization of the remediation phase.

c. This action is being coordinated with Baltimore District, Corps of Engineers.



G. E. FRIEL
BG, USA
Commander
Service Response Force



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Center for Disease Control
Atlanta GA 30333

January 14, 1992

Brigadier General Walter L. Busbee
Director
U.S. Army Chemical Material Destruction Agency
Attn: SFIL-COZ, Building X-4555
Aberdeen Proving Ground, Maryland 21010-5401

Dear General Busbee:

We have reviewed the proposed plans for Operation Safe Removal, a project to move old chemical munitions from the District of Columbia to Pine Bluff Arsenal, Arkansas. We have only two concerns remaining:

- o Contingency plans to deal with the consequences of a transportation incident during movement to Andrews Air Force Base need to be in place before the movement.
- o The Explosive Ordnance Disposal teams located between the District of Columbia and Pine Bluff Arsenal should be assembled at appropriate locations during the time the flight is in their vicinity, not merely available for call-up.

With these recommendations, we believe the Army's plans adequately address protection of human health and safety during the transportation of the munitions.

Sincerely yours,

V.N.H.
Vernon N. Houk, M.D.
Assistant Surgeon General
Director
National Center for Environmental Health



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF

COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

14 Jan 93

MEMORANDUM FOR Director of Operations, ODCSOPS

SUBJECT: Schedules for Operation Safe Removal

After considering the condition of the site, the amount of work to do yet, and the logistical complications caused by the activities next week, I have concluded the best course of action is to conduct an orderly termination of operations in the excavation site on Friday, 15 Jan 93. A structured lockdown and safing of the entire area will occur on Saturday, 16 Jan 93.

We will reconstitute and prepare the SRF to resume operations early next Thursday, 21 Jan 93. In selecting ^{the} course of action, I have considered operation safety, logistical requirements, input from the federal and District agencies as well the affected homeowners. To accomplish the above tasks in an orderly manner and maintain public support for the operation I need to announce this plan at the town hall meeting tonight at 1800.

GEORGE E. FRIEL
Brigadier General, U.S. Army
On-Site Commander

FACSIMILE/BACOM TRANSMITTAL HEADER SHEET

ORIGIN	OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASEE'S SIGNATURE	
FROM DA WASH DC	DIA10-000 CAT	(703) 693-4827/6	LTC WAGNER <i>Micell Wagner</i>	
TO SRF WASH DC		DATE-TIME 150850	MONTH JAN	YEAR 93
CLASSIFICATION UNCLAS	PAGES HEADER 4	PRIORITy ROUTINE	FAX # (202) 282-0728	

REMARKS:

CONTACT Col Kenison/KEN Boyd AT (202) 282-2445
RANK - MAJ TELEPHONE NUMBER

UPON RECEIPT OF THIS FAXIMILE MESSAGE FOR PICKUP, ADDRESSEE IS REQUESTED
 TO ACKNOWLEDGE RECEIPT TO THE ORIGINATOR AT THE ABOVE TELEPHONE NUMBER.

SPACE BELOW IS FOR COMMUNICATIONS CENTER USE

MESSAGE NUMBER	TIME OF TRANSMISSION	TIME OF RECEIPT	
OPERATOR INITIALS	VERIFICATION INITIALS	DUTY OFFICER'S INITIALS	FAX TELEPHONE NUMBER

PTD ADDRESS:

273 373 223... AV 224-3286 OR 223-7333
 273 373 21734... AV 223-3291/3292

273 372 33022... AV 227-3373 UNCLAS DIALT

DA FORM 2310-R

JAN-15-1993 10:04 FROM AOC CRISIS CENTER

TO 912022320728 P.02

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DA WASH DC //DAMO-ODZ//
CDR USA CBDA APG MD //AMSCB-CS//
CDR USACE WASH DC //CEMD//

INFO

DA WASH DC //SAILE/DAMO-SW/SFIL-CD/DAEN-ZCZ-C/DACS-SF//
PM CML DEMIL APG MD //SAILE-PH/SAILE-MS//
CDR HSC FT SAM HOUSTON TX//HSOB-SO//
CDR AMC ALEXANDRIA VA//AMCCG/AMCOC-LG/AMCCB//
CDR MDW FT MCNAIR WASHINGTON DC//ANCS/ANOP-OP//
CDRUSAEEHA APG MD//HSHB-Z//
CDR USAED, BALTIMORE MD //CENAB//
CDR USAED, HUNTSVILLE AL //CEHND//

UNCLAS

CBDA PASS TO SRF/OSC CDR WASHINGTON DC

SUBJECT: CHEMICAL EVNT PHASE I (EMERGENCY RESPONSE) TRANSITION

CRITERIA

1. THIS MESSAGE ESTABLISHES CRITERIA FOR VERIFYING TERMINATION OF THE EMERGENCY RESPONSE PHASE AND THE BEGINNING OF THE RECOVERY/REMEDIATION PHASE OF A FORMERLY USED DEFENSE SITE (FUDS) LOCATED IN

J.M. COLEMAN, LTC, GS- DAMO-000
DSN 223-4627


J.C. HELDSTAB, MS GS- DSN 227-4304

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S:\TERMP3.DBF-- ID# 1

-15-1993 10:04 FROM ADC CRISIS CENTER

TO 912022520728 P.03

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02 04 151343Z JAN 93 00 00 UUUU

THE SPRING VALLEY SECTION OF WASHINGTON D.C. THE ARMY DEVELOPED A TWO PHASE OPERATION PLAN AS FOLLOWS:

A. THE EMERGENCY RESPONSE PHASE (PHASE I) ACCOMPLISHED BY THE SERVICE RESPONSE FORCE (SRF) WHICH INCLUDES REMOVING, TESTING, PACKAGING AND TRANSPORTING POTENTIALLY HAZARDOUS MUNITIONS TO SAFE STORAGE LOCATIONS FOR DISPOSAL.

B. THE RECOVERY/REMEDIATION PHASE (PHASE II) ACCOMPLISHED BY THE US ARMY CORPS OF ENGINEERS- BALTIMORE DISTRICT WHICH INCLUDES REMEDIAL ACTIVITIES TO RESTORE CONDITIONS AT AND IN THE VICINITY OF THE FUDS TO AN ACCEPTABLE ENVIRONMENTAL STATE.

C. THE EMERGENCY RESPONSE PHASE CONTINUES UNTIL THE SRF COMMANDER DETERMINES THAT THE THREAT OF IMMINENT RISK HAS BEEN ELIMINATED. THE CRITERIA FOR TERMINATION OF PHASE I FOLLOWS:

A. ALL LIQUID OR SOLID FILLED MUNITIONS AND OTHER OBJECTS OR DEBRIS SUSPECTED TO CONTAIN OR BE CONTAMINATED BY ACTUAL OR SUSPECTED CHEMICAL AGENTS LOCATED IN THE SUSPECTED FORMER DISPOSAL PIT ARE CONTAINERIZED AND RENDERED SAFE FOR TRANSPORTATION.

B. ALL OF THE ABOVE LIQUID AND SOLID FILLED MUNITIONS- AND MATERIAL ARE REMOVED FROM THE SPRING VALLEY RESIDENTIAL AREA.

C. THE SRF COMMANDER DETERMINES THAT THE SOIL IS REMOVED FROM AND

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03 04 151343Z JAN 93 00 00 UUUU

SURROUNDING THE EXCAVATED AREA POSES NO IMMINENT RISK OF HARM. THE SRF CDR WILL COORDINATE WITH EPA AND AEHA TO OBTAIN SAMPLING PROCEDURES (NUMBER, TYPE, HANDLING PROCEDURES, ETC.) AND HAZARD LEVELS. SRF CDR WILL COORDINATE WITH EPA OR OTHER FEDERAL AGENCIES TO DETERMINE HAZARD AGENTS OF INTEREST AND SAFETY VALUES. TEST RESULTS MUST REFLECT LESS THAN THE FOLLOWING:

MUSTARD	0.06 MG/GRAM OF SOIL
LEWISITE	0.06 MG/GRAM OF SOIL
ADAM SITE	2.6 MG/GRAM OF SOIL
ARSENIC	0.097 MG/GRAM OF SOIL
CHLOROACETOPHENONE	1.57 MG/GRAM OF SOIL
CYANOGEN CHLORIDE	3.12 MG/GRAM OF SOIL
CHLOROPTCRIN	3.5 MG/GRAM OF SOIL
PHOSGENE	2.07 MG/GRAM OF SOIL
MERCURY	1.6 MG/GRAM OF SOIL
LEAD	0.9 MG/GRAM OF SOIL
CHROMIUM VI	3.9 MG/GRAM OF SOIL

NOTE 1: OR TO NATURALLY OCCURRING BACKGROUND LEVELS IF HIGHER.

NOTE 2: THESE CONTAMINATION LEVELS DO NOT REPRESENT THE FINAL LEVEL AS A RESULT OF PHASE II.

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~15-1993 10:05 FROM ADC CRISIS CENTER

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912822620726 P.05

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D. THE SITE IS DECLARED SAFE BY THE SRF COMMANDER, AND A RECOMMENDATION IS MADE TO APPROPRIATE CITY OFFICIALS THAT RESIDENTS MAY RETURN TO THEIR HOMES AND THE DEVELOPER MAY CONTINUE UTILITY WORK AT THE SITE.

E. POC IS LTC J.M. COLEMAN, DAMO-000-CAT, (703)693-4827.



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JAN-15-1993 15:55 FROM CRDEC/APG,MD SMOOR-PI

TO

912022820728

P.01

C BTA
D2071C
ICHA

IMMED 0957

DATE: 015
TIME: 1811

15 January 93 (0957)Y

1 Cy Reading File

ACTION: AMSCB-CM

INFO: AMSCB-CG

OTTUZYUW RUEADWD~~2283~~-0151750-UUUU--RUEANEW.

ZNR UUUUU

O 151343Z JAN 93

FM DA WASH DC //DAMO-ODZ//

TO RULNAPG/CDR USA CBDA APG MD //AMSCB-CG//✓

RUKGNNEA/CDR USACE WASH DC //CEMD//✓

INFO RUEADWD/DA WASH DC //SAILE/DAMO-SW/SFIL-CD/DAEN-ZCZ-C/DACS-SF//✓

RUEANEW/FM CML DEMIL APG MD //SAILE-PM/SAILE-MS//

RUWTNFH/CDR HSC FT SAM HOUSTON TX//HSOB-SO//

RUKLDAR/CDR AMC ALEXANDRIA VA//AMCCG/AMCOC-LG/AMCCB//

RUKGNNDW/CDR MDW FT MCNAIR WASHINGTON DC//ANCS/ANOP-OP//

RUEANEW/CDRUSAECM APG MD//HSHB-Z//✓

RUEACBE/CDRUSAED BALTIMORE MD //CENAB//

RUCDGDA/CDRUSAED HUNTSVILLE AL //CEHND//

BT

UNCLAS

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PAGE 02 RUEADWD2283 UNCLAS

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PAGE 03 RUEADWD2283 UNCLAS

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PAGE 04 RUEADWD2283 UNCLAS

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J. POC IS LTC J.M. COLEMAN, DAMO-ODD-CAT, (703)693-4627.

BT

IMMEDIATE

PAGE: 2

0976

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OPD CTA
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IMMEDIATE

DATE: 015
TIME: 2054

19 January 93(0976)Y

1 Cy Reading File

ACTION: AMSCB-CM

INFO: AMSCB-CG

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ZNR UUUUU ZOV RULNCAR6789 REROUTE OF RUEADWD2536 0152009
RUEANEW T CDR CWUA ABERDEEN PROVING GROUND MD
O 152000Z JAN 93
FM DA WASHINGTON DC//DAMO-ODO-CAT//
TO RHCGSRB/CDR FORSCOM FT MCPHERSON GA//FCJ3-OC//
INFO RUEBJFA/CDR FT AP HILL BOWLING GREEN VA//CDR/AFKA-FHE//
RULNEAA/CDR CWUA ABERDEEN PROVING GROUND MD//AMSCB-CG//

BT

UNCLAS

CBDA PASS TO SRF/OSC CDR WASHINGTON D.C. FOR INFO
SUBJECT: DEMOLITION SUPPORT FOR CHEMICAL EVENT WASHINGTON D.C.
1. THIS MESSAGE CONSTITUTES FORMAL TASKING TO PROVIDE DEMOLITION SUPPORT AT FT A.P. HILL TO THE SERVICE RESPONSE FORCE (SRF) FOR THE CHEMICAL EVENT IN WASHINGTON D.C. SUPPORT WILL INCLUDE:
A. FT A.P. HILL OBTAIN NECESSARY PERMITS FROM THE STATE OF VA FOR EMERGENCY DEMOLITION OF UNEXPLODED MUNITIONS EVACUATED FROM THE WASHINGTON D.C. SITE.
B. USE OF RANGES AND OTHER SUPPORT AS REQUIRED AT FT A.P. HILL FOR EMERGENCY DEMOLITION OF THE UNEXPLODED MUNITIONS.
2. DIRECT LIAISON AUTHORIZED WITH SRF OPERATIONS, MR KEN BOYD, AT (202) 282-0634/0642 AND THE 67TH EOD, LT MEINERT, AT (202) 475-1988.
3. FUND CITE QUESTIONS SHOULD BE DIRECTED TO MR. GLENN EARHART.

PAGE 02 RUEADWD2536 UNCLAS

CORPS OF ENGINEERS, BALTIMORE DISTRICT AT VOICE (410) 962-3369 OR FAX (410) 962-9312. REFER TO SPRING VALLEY RESTORATION OPERATION (PROJ. NO. COEDC0918-01).

4. HQ DA POC IS LTC COLEMAN, DSN 223-4827/6.

BT

#2536//

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PAGE: 1

Operation Safe Removal

15 Jan 1993

Transportation and Sampling Plan - Liquid Filled Rounds for Sampling at the Edgewood RD&E Center, Edgewood Area, APG, MD

1. Situation

a. Various liquid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in special containers and shipped to an appropriate military installation for storage until final disposition can be accomplished.

b. Once the imminent hazard is removed, the site will be turned over to the control of the Army Corps of Engineers for further evaluation and remediation.

c. In order to provide information pertinent to the follow-on site evaluation and remediation, and to provide information to the agencies involved concerning the contents of the recovered rounds, three recovered rounds will be sampled and analyzed to determine the contents.

d. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Edgewood Research Development Engineering Center
- (3) Maryland Department of the Environment
- (4) Aberdeen Proving Ground
- (5) Dept of Health & Human Services
- (6) Department of Transportation
- (7) Washington DC Police
- (8) Washington DC Fire Department

2. Mission. Safely move three representative rounds from Spring Valley to the Edgewood Research, Development & Engineering Center (ERDEC) which is located at Aberdeen Proving Ground. Obtain a sample from each round and analyze each sample to characterize contents. Properly manage any resulting waste.

3. EXECUTION

a. Concept of movement. Three liquid filled rounds, typical of each of the type of the rounds recovered during Operation Safe Removal, will be transported to APG under the control of the Technical Escort Unit and sampled and analyzed by the Operations Directorate, ERDEC. Disposition of the fill and round will be determined based on the results of the analyses.

(1) The movement, sampling, analysis, and ultimate disposal will be conducted in a manner so as to minimize the risk to the workers, the public, and the environment.

(2) A technical escort officer (TEO) will be responsible for the custody, safety, and security of the material during the movement. The technical escort officer will be assisted by one other escort person.

(3) The sampling and analysis will be conducted by ERDEC personnel in accordance with approved SOP(s).

b. Phase A - Spring Valley to APG

(1) Packaging.

(a) Containerization. Liquid filled rounds will be packaged and certified in accordance with DOT requirements for air shipment.

(b) Configuration. Securing of the load within the aircraft will be in accordance with FAA requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Department of the Army pilots.

(3) Flight plan. The aircraft will fly along established air corridors, to the maximum extent possible, to avoid populated areas. The specified route is as follows: from Spring Valley directly to Clara Barton Parkway, then north following Clara Barton parkway to I-495, then east following I-495 to route I-95, then south following I-95 to route 295, Northeast along route 295 to the intersection of route 295 and route 32, from this point the aircraft will fly essentially a straight line, over BWI airport direct to Weide AAF, APG (EA), MD. See Appendix A.

(4) Contingency Planning. A chase helicopter will fly with the load carrying helicopter. The chase helicopter will carry three USA Technical Escort Unit personnel trained in emergency response. The personnel will carry with them absorbent material, plastic, bleach and water.

c. Phase B - Receipt at ERDEC, APG

(1) Movement at ERDEC. Items will be moved by ground vehicle from Weide AAF to the Chemical Transfer Facility (CTF), Bldg E3832.

(2) Security. Special security will be provided by the technical escort team accompanying the shipment in the chase helicopter until the shipment is transferred to the ERDEC personnel at the CTF.

(3) Fire. Fire support will be provided by Aberdeen Proving Ground.

(4) Medical. Medical support will be provided by Aberdeen Proving Ground.

(5) EOD. EOD support will be provided by the Technical Escort Unit. These people are specially trained in both explosive handling and chemical decontamination techniques.

d. Phase C - Sampling, Analysis, and Disposition of Items at APG.

(1) Upon arrival at APG, each round will undergo initial analysis utilizing Portable Isotopic Neutron Spectroscopy, a non-invasive detection method.

(2) Each round will be cooled in a refrigerator to reduce the vapor pressure of the fill.

(3) The round will be placed in the CHATS and a hole will be drilled in it.

(4) A liquid sample will be drawn and sent to the lab for analysis.

(5) The remainder of the fill will be transferred into DOT cans.

(6) The empty munition will be decontaminated, bagged, and bubbled.

(7) Ultimate disposition of the empty munition and the fill will be determined based in the results of the analysis.

4. Service Support.

a. Regulatory Approvals.

(1) The State of Maryland will have granted approval of this action.

(2) The Army has obtained a generators identification number from the District of Columbia to assure full accountability for items recovered during removal operations.

(3) The CBDA obtained DOT approval for the adequacy of their special single round containers for air shipment.

b. General Support.

(1) Security at Spring Valley. Washington DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington DC

has provided excellent support during the hours of recovery operations.

(3) Medical Support at Spring Valley. Washington DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure. Rotary Wing aircraft. The Army will use two UH-1 aircraft for the flight because of their ability to land safely despite engine failure. If such an event should occur, the chase helicopter will land near the downed aircraft, will offer life saving, decontamination or other emergency service and will secure the site until military response units arrive. Technicians riding in the chase helicopter are trained in emergency procedures.

(2) Aircraft Fire. The escorts aboard the load carrying helicopter are trained in fire fighting as well as emergency decontamination enroute.

(3) Container leak. It is highly unlikely that the packaging containers will leak. All munitions are surrounded in absorbent material within special containers, and configured for maximum safety. All have been tested in accordance with DOT standards and have been used without problems. In the unlikely event of a leak the escort technicians riding with the cargo aircraft are trained in decontamination procedures and will be able to control the situation until the aircraft can land.

5. Command and Signal.

a. Phase A - Spring Valley to APG. During the movement, command and control will be provided by the SRF Headquarters at Spring Valley.

b. Phase B - Receipt at ERDEC, APG. Command and control will be provided by ERDEC Emergency Operations Center.

c. Phase C - Sampling, Analysis, and Disposition at ERDEC. During sampling, analysis, and disposition at ERDEC, command and control will be provided by the ERDEC Emergency Operations Center.

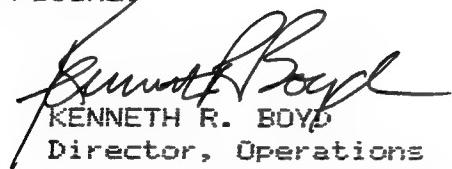
Operation Safe Removal

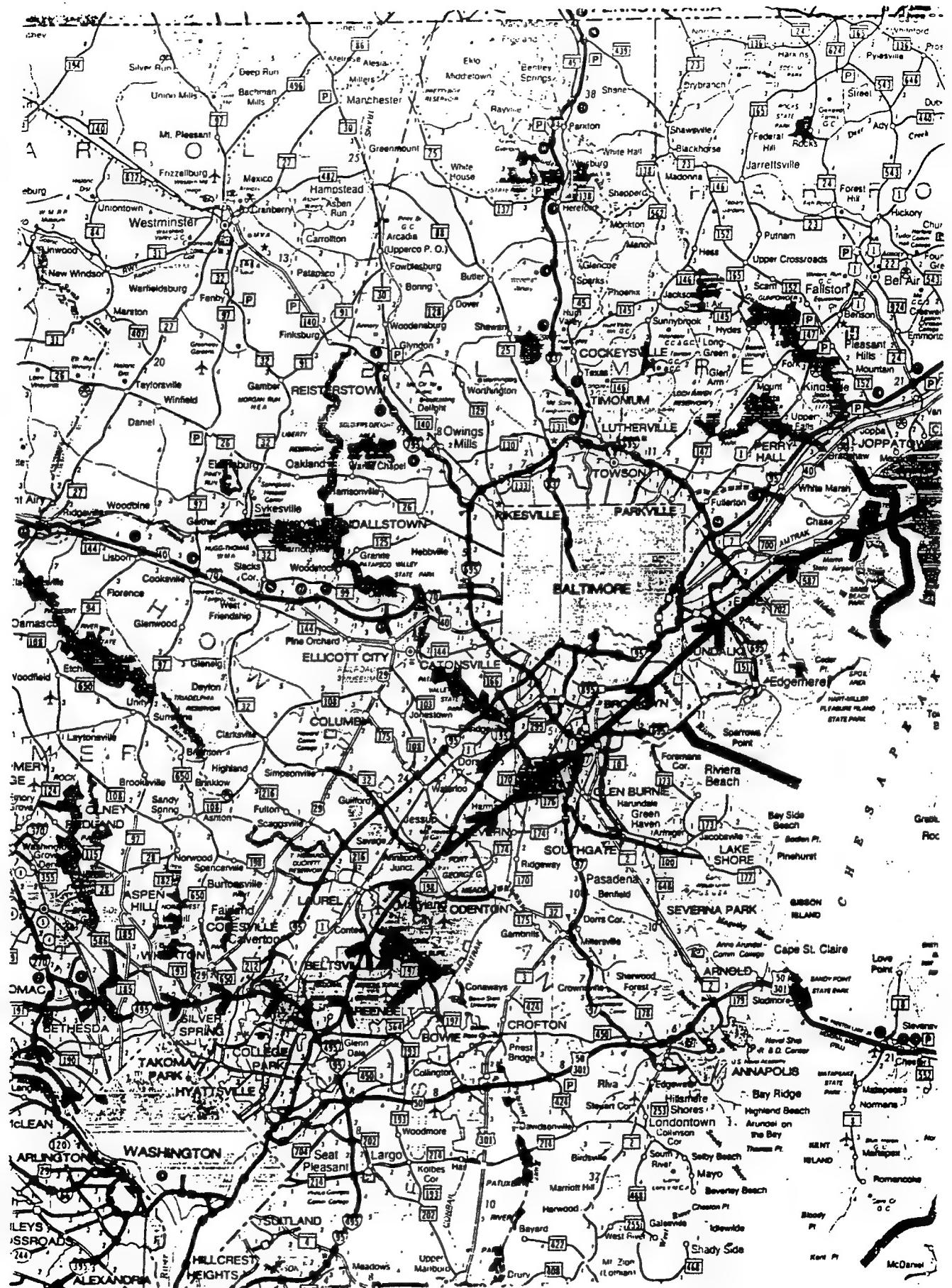
15 Jan 1993

Transportation and Sampling Plan - Liquid Filled Rounds for
Sampling at the Edgewood RD&E Center, Edgewood Area, APG, MD


GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

OFFICIAL:


KENNETH R. BOYD
Director, Operations



Operation Safe Removal
Transportation Plan - Solid Filled Rounds

15 Jan 93

1. Situation

a. Various solid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in containers which meet DOD requirements for air shipment. These consist of empty, high explosive and white phosphorus filled rounds.

b. The rounds must be sent to an appropriate military installation for disposition by explosive detonation.

c. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Military District of Washington
- (3) Ft A P Hill, Bowling Green, VA
- (4) U.S. Army Armament Munitions & Chemical Command
- (5) Edgewood Research Development Engineering Center
- (6) 67th Ord Detachment (EOD)
- (7) Dept of Health & Human Services
- (8) Department of Transportation
- (9) Washington DC Departments of Emergency Medical Service, Police, and Fire.

2. Mission. To safely and expeditiously move solid filled rounds from the Spring Valley site from which they were recovered to Ft A P Hill, Bowling Green, VA, for disposal.

3. EXECUTION

a. Concept of movement. Solid filled rounds will be moved by air in accordance with Department of Defense (DOD) requirements under the control of the 67th Ordnance Detachment (EOD), Ft A P Hill.

(1) The movement will be conducted in a manner so as to minimize the risk to the workers, the public, and the environment.

(2) An emergency Virginia hazardous waste manifest will be used to document movement of the waste from Spring Valley to Ft A P Hill.

(3) A 67th EOD detachment officer will be responsible for the custody, safety, and security of the material during the movement.

b. Mission - Spring Valley to the Ft A P Hill, Bowling Green, VA Upper Zion demolition site.

(1) Packaging.

(a) Containerization. Solid filled rounds will be packaged and certified in accordance with DOD requirements for air shipment. Rounds are wrapped in fiberboard and securely positioned in a wooden ammunition box. Quantity of rounds per box will be determined by size of round relative to available space in the box. The fiberboard prevents metal to metal contact. The secure positioning is fabricated to provide protection of the fuse

(b) Configuration. Securing of the load within the aircraft will be in accordance with DOD requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Department of the Army Pilots.

(3) Flight Plan. The aircraft will fly using a route down the Potomac River to the vicinity of Fairview Beach (where the Potomac makes a bend to the East), and then south to the demolition area of Ft A P Hill. This routing will avoid populated areas and accommodate the range of the aircraft without a refuel stop, as refueling with explosives aboard is inappropriate from a safety perspective.

(4) Documentation. A Virginia hazardous waste manifest will be prepared prior to shipment.

(5) Security. The impact area at Ft A P Hill is always secured. Entrance to the impact area is for demolition work only.

(6) Fire. Fire support will be provided by Ft A P Hill. It will be in a standby mode during landing.

(7) Medical. Medical support will also be provided by Ft A P hill. Two Medics and a tactical ambulance will be at the site during landing and demolition operations.

(8) EOD. EOD Support will be provided by the 67th Ord Det (EOD) located at Ft A P Hill. These people are specially trained in explosive ordnance operations.

4. Service Support.

a. Regulatory Approvals.

(1) The Army obtained a generator's identification number from the District of Columbia to assure full accountability for items recovered during removal operations.

(2) Ft A P Hill will have obtained an emergency hazardous waste destruction and storage permit. The storage portion of the permit is to allow storage if weather does not permit destruction

of the items immediately. The permit must be in place prior to movement of the solid filled munitions.

b. General Support.

(1) Security at Spring Valley. Washington DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington DC has provided excellent support during the hours of recovery operation.

(3) Medical Support at Spring Valley. Washington DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure. Rotary wing aircraft. The Army will use UH-1 aircraft for the flights because of its ability to land safely despite engine failure.

(2) Aircraft Fire. Crew of chopper is trained in fire fighting, and EOD will augment the helicopter crew.

5. Command and Signal.

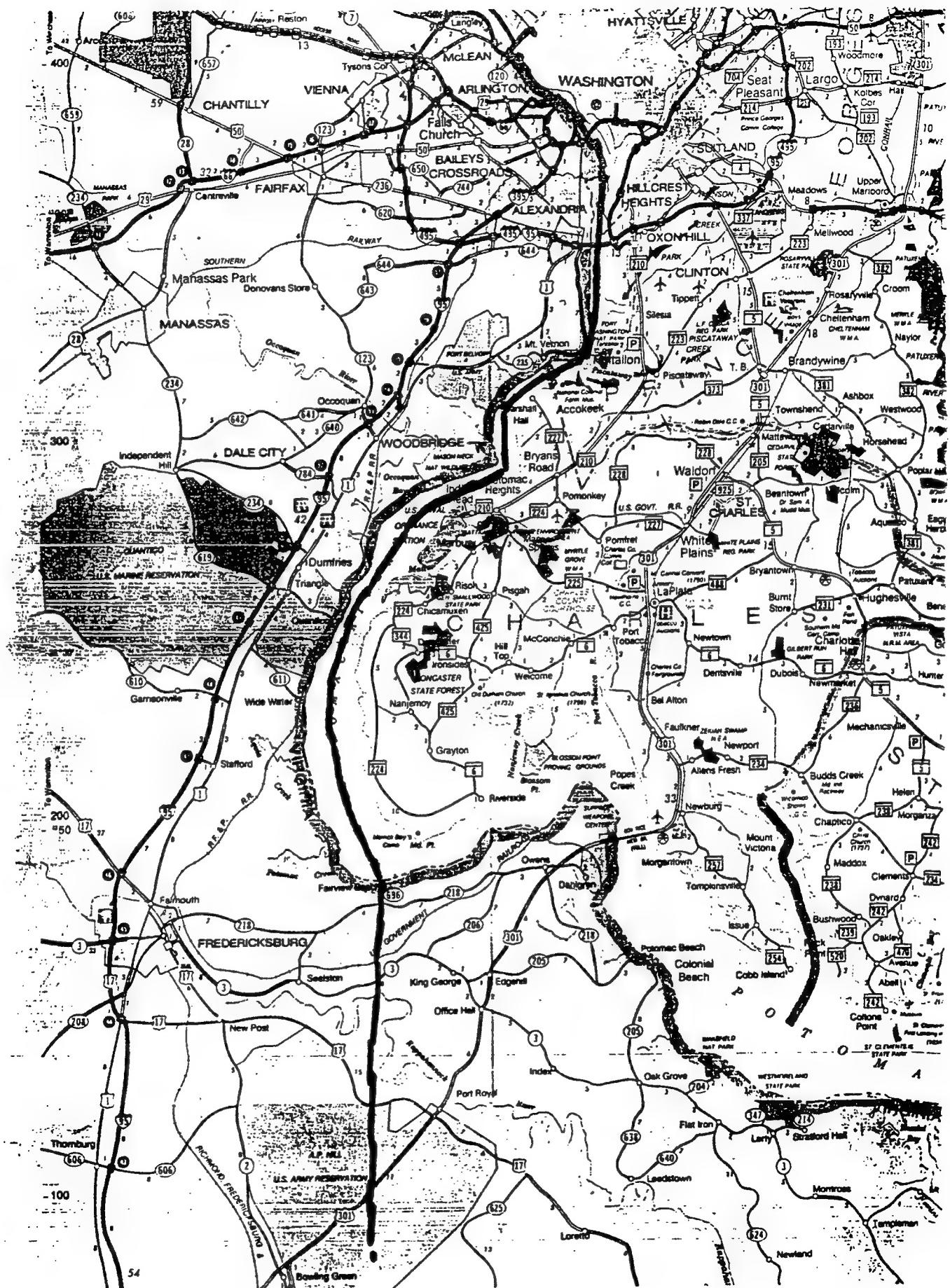
Spring Valley to Ft A P Hill. During the movement, command and control will be provided by the SRF Headquarters at Spring Valley.

GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

OFFICIAL:



KENNETH R. BOYD
Director, Operations



SRFC/OSC

16 January 1993

MEMORANDUM FOR NATIONAL RESPONSE CENTER

SUBJECT: Operation Safe Removal Update

1. This memorandum provides information on Operation Safe Removal from inception until today and our status through startup on Thursday, 21 Jan. This info will assist you to respond to queries from other government agencies.
2. On 5 Jan 93 a civilian contractor digging a utility trench for new construction in the Spring Valley area of Washington, D.C., unearthed World War I munitions. At approximately 1535 the 67th EOD assigned to MDW identified the presence of possible chemical munitions at the site. The Technical Escort Unit from Aberdeen Proving Ground was called in and identified the munitions as those designed to deliver chemical payloads. Though this was reported as a chemical event, no chemical surety material or hazardous substances were spilled or released into the environment.
3. MDW requested a service response force and Department of the Army assigned BG George E. Friel, commander of Chemical and Biological Defense Agency, as service response force commander/on scene coordinator on 7 Jan. BG Friel, in coordination with the D.C. city government, began a daily evacuation of a four-block area (300 meters) during cleanup operations. Air monitoring equipment is used during operations to enhance safety for all operation personnel and a designated hot line area precludes unauthorized persons from entering the zone.
4. The emergency response phase is phase I. Phase II (remediation and recovery) will be directed by the Corps of Engineers and will commence at termination of phase I.
5. Daily operations include excavating the pit to search for additional munitions, cataloging and x-raying found munitions to determine content and "safing" and securing the munitions in preparation for movement out.

SRFC/OSC

16 January 1993

SUBJECT: Operation Safe Removal Update

6. To date, we have recovered 24 liquid filled munitions, 43 solid filled (high explosive) munitions and 15 munitions that are unassessed. On Thursday, 14 Jan., we shipped the following liquid-filled munitions to Pine Bluff Arsenal, Ark., for storage: 10 Levins projectors, one 4.7" projectile and six 75mm projectiles. Solid filled and unassessed munitions are still safely stored on-site awaiting removal to another military installation for demolition.

7. We airlifted three representative liquid filled munitions to Aberdeen Proving Ground-Edgewood Area today to evaluate their contents using the Portable Isotopic Neutron Spectroscopy and further analysis by drill and sample. Scrap materials recovered from the pit are boxed and sealed and will be removed to an authorized landfill by a licensed hazardous waste contractor.

8. The service response force will suspend work at the site from 16-21 Jan 93. Lockdown and security are coordinated with the D.C. police and courtesy military patrols will accompany local police at road blocks or barriers. Residents will be allowed in their homes on a 24-hour basis until work resumes at 0800 21 Jan. At that time, the residents' evacuation will begin at 0800 and terminate daily at 1800 until phase I is complete.

9. Non-DOD agencies working in coordination with the U.S. Army are D.C. police and fire departments and Office of Emergency Preparedness, Department of Health and Human Services, American National Red Cross, Environmental Protection Agency, Federal Emergency Management Agency, Center for Disease Control, Occupational Safety and Health Administration and U.S. Secret Service. The DOD Service Response Force on site includes the Chemical and Biological Defense Agency, the Army Technical Escort Unit, Army EOD

SRFC/OSC

16 January 1993

SUBJECT: Operation Safe Removal Update

unit, a chemical decontamination company, Military District of Washington, Corps of Engineers, and Defense Mapping Agency. The Service Response Force Headquarters includes several elements of the Chemical Biological Defense Agency and special staff personnel from the Army Materiel Command and other DOD agencies.

10. To date there has been no identification of chemical agents or hazardous substances which have endangered the public or been a hazard to my emergency response force; however, all appropriate safety precautions and work area monitoring are in place to ensure protection to the workers, community residents and the surrounding area.

11. Commander's assessment: Plans for the five day break are in place--homeowners and civil authorities continue to support the operation. Pit excavation is going well. The safe move of munitions to Pine Bluff Arsenal demonstrated the cooperative efforts of the many organizations needed to complete the mission successfully. The preparation and planning for transition to the remediation phase are progressing satisfactorily.

12. During the stand down phase, call the AOC CAT Team (phone 703-697-0218) who can direct immediate inquiries to appropriate Service Response Force personnel.



GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force
Commander/On Scene Coordinator

JAN-16-1993 10:08 FROM AOC CRISIS CENTER

TO

912022020728 P.02

UNCLASSIFIED

01 04 JAN 93 00 00 UUUU

CDR CBDA APG MD //AMSCB-CG//
DIR ERDEC APG MD //SCBRD-TD//SCBRD-ODC/SCBRD-ODR-C//
CDR AMCCOM ROCK ISLAND IL //AMSMC-CO/AMSMC-SR/AMSMC-THA//
CDR 549 EODCC FT MEADE MD //TMO//
CDR 349TH ORD DET ANDREWS AFB MD //CDR//
CDR AASF WEIDE AAF APG-EA MD //CDR//
CDR APGSA APG MD //STEAP-SH-F/STEAP-PF-S//
CDR USATEU APG-EA MD //SCBTE-OP/SCBTE-CO/SCBTE-SS//

INFO

DA WASHINGTON DC //DAMO-SWS/DAMO-SWC/DAMO-SMA-ECD/DACS-SF/
DAMO-ODL/SGPS-PSP/SAIG-TI/SFIL-CD/DAPE-HRE/
DALO-TSP/SAILE-EOSH//
CDR USANCA FT BELVOIR VA //MONA-SU/MONA-CM//
CDR AMC ALEXANDRIA VA //AMCSF-C/AMCCB//
CDR FORSCOM FT MCPHERSON GA //AFOD-OC/AFOP-TN//
ZEN DIR ERDEC APG MD //SCBRD-ODR-C//
ZEN CDR USACMDA APG MD //SFIL-NSP/SFIL-CMZ/SFIL-NSZ//

UNCLAS

SUBJ: NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT

I. IN ACCORDANCE WITH 40 CFR 261.1(D), AND STATE OF MD REGULATION

BETTY PETERSON, SRF-OPS
(202)-282-0634

C. COGSWELL, COL, GS, DSN 225-5505

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191

Released
to Col Coleman
1020
16 Jun 93

UNCLASSIFIED

02 04 JAN 93 00 00 UUUU

COMAR 26.13.02.04D, WE ARE DIRECTING THE U.S. ARMY TECHNICAL ESCORT UNIT TO CONDUCT EMERGENCY SHIPMENT OF ENVIRONMENTAL SAMPLES SUSPECTED TO CONTAIN PHOSGENE (CG) FROM SPRING VALLEY, WASHINGTON DC TO ABERDEEN PROVING GROUND, MD.

2. CBDA CONTROL NUMBER: CBDA #93-02.
3. NOTE: THE SCHEDULE OF EVENTS IS AN ESTIMATE. DUE TO THE TIME CONSTRAINTS ASSOCIATED WITH THIS EMERGENCY MISSION, INFORMATION CONTAINED HEREIN WILL BE UPDATED TELEPHONICALLY TO KEY ADDRESSEES. SHOULD DELAYS OCCUR, THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS WILL NOT CHANGE, ONLY THE TIMES AND DATES.
4. TRANSPORTATION RELEASE NUMBER: NA.
5. SHIPPING ORDER NUMBER: NONE.
6. NAME OF CARRIER AND EXACT ROUTING: UH-1 TAIL NUMBER 736, DEPART SPRING VALLEY, WASH DC O/A 1045 EST, 16 JAN 93.
7. CAR OR OTHER VEHICLE NUMBER: NA.
8. BILL OF LADING NUMBER: NA.
9. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT IS AUTHORIZED BY CDR- CBDA UP REGULATION REFERENCED IN PARA 5 THIS MESSAGE.
10. BRIEF DESCRIPTION OF CONTENTS AND METHOD OF PACKAGING:

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UNCLASSIFIED

03 04 JAN 93 00 00 UUUU

A. DESCRIPTION:

(1) TWO 75MM SHELLS, LIQUID-FILLED, SUSPECT CG; SHELL IS UNBURSTERED, UNFUZED.

(2) LIVENS PROJECTILE, LIQUID-FILLED, SUSPECT CG; PROJECTILE IS UNBURSTERED, UNFUZED.

B. PROPER SHIPPING NAME: AMMUNITION, TOXIC, POISON UN2016.

C. PACKAGING: ITEM IS PLACED INTO A 4-6 MIL PLASTIC BAG WHICH IS CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE SIZED SINGLE ROUND CONTAINER WITH VOIDS FILLED WITH VERMICULITE. THE CONTAINER IS SEALED BY A FLANGE PLATE, TWO CONCENTRIC GASKETS, AND 6 BOLTS. THE METAL CONTAINER IS PUT INTO A DOT 19B WOODEN BOX.

D. CONFIGURATION:

TYPE	SRC	ITEM	NO ITEMS/SRC	WT	CU FT
X		LIVENS	1	220	5.8
155		75MM	2	86	3.0

11. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC: 1045 EST
16 JAN 93.

12. DATE AND TIME OF ARRIVAL AT ABERDEEN PROVING GROUND-EDGWOOD AREA, MD: 1130 EST, 16 JAN 93.

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04 04 JAN 93 00 00 UUUU

13. NAME AND SSN OF TECHNICAL ESCORTS:

LOAD HELICOPTER SSN

TEO MR. BRIAN BUSSEY

MR. TIM BLADES UNK

CHASE HELICOPTER

MR. KEN MCGEE

MR. GERALD SURRETT

MR. CARL BOWIE

14. THE POC AND STORAGE CUSTODIAN AT ABERDEEN PROVING GROUND IS MR. GEORGE SMITH, SCBRD-ODC, DSN 584-4202.

15. POC FOR THIS ACTION IS MRS. BETTY PETERSON, OPERATION SAFE REMOVAL, (202)-282-0634/0642.

UNCLASSIFIED

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194

TOTAL P.05

Terry



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF

COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

16 Jan 93

The SRF Commander is aware of the provisions of 40CRF261.
The State of Md has given permission to move munitions to
Aberdeen Proving Ground (Edgewood Area) for emergency analysis.

Jim Bacon
JIM BACON
Deputy On-Site
Coordinator

oxicity, and do not fall the test for any other characteristic) are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and hearing.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and hearing.

(C) Building dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by § 2086.112 of this chapter for facilities that burn or process hazardous waste. For purposes of § 201.4(b)(7), beneficiation of ores and minerals is restricted to the following activities: Crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting; autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and *in situ* leaching. For the purpose

and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste. For purposes of § 261.4(b)(7), beneficiation of ores and minerals is restricted to the following activities: Crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting; autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination) leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and *in situ* leaching. For the purpose

(xvii) Process wastewater from primary magnesium processing by the anhydrous process;

(xviii) Process wastewater from phosphoric acid production;

(xix) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;

(xx) Basic oxygen furnace and open hearth furnace slag from carbon steel production;

(xxi) Chloride process waste solids from titanium tetrachloride production;

(xxii) Slag from primary zinc processing.

(g) Cement kiln dust waste, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

(h) Solid waste which consists of discarded wood or wood products which failed the test for the Toxicity Characteristic solely for arsenic and which is not a hazardous waste for any other reason.

tion 1. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if:

(1) Operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed; and

(2) A copy of the written agreement has been submitted to: Characteristics Section (OS-333), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/through-the-blue; hair pulp/chrome tan/through-the-blue; and shearling.

of § 261.4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes:

- (I) Slag from primary copper processing;
- (II) Slag from primary lead processing;
- (III) Red and brown muds from bauxite refining;
- (IV) Phosphogypsum from phosphorus refining.

roundwater that is because it exhibits the

- (i) The sample is being transported to a laboratory for the purpose of testing; or
 - (ii) The sample is being transported back to the sample collector after testing; or
 - (iii) The sample is being stored in a laboratory for testing; or
 - (iv) The sample is being stored in a laboratory before testing, or
 - (v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or
 - (vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).
- (2) In order to qualify for the exemption in paragraphs (d)(1) and (ii) of this section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:
- (i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
 - (ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

- (A) Assure that the following information accompanies the sample:
 - (1) The sample collector's name, mailing address, and telephone number;
 - (2) The laboratory's name, mailing address, and telephone number;
 - (3) The quantity of the sample;
 - (4) The date of shipment; and
 - (5) A description of the sample so that it does not leak, spill, or vaporize from its packaging.
- (3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in paragraph (d)(1) of this section.
- (e) **Treatability Study Samples.** (1) Except as provided in paragraph (e)(2) of this section, persons who generate or collect samples for the purpose of conducting treatability studies as de-

Environmental Protection Agency

- (i) The name, address, and telephone number of the facility that will perform the treatability study;
- (ii) The quantity of the sample;
- (iii) The date of shipment; and
- (iv) A description of the sample, including its EPA Hazardous Waste Number.
- (v) The sample is shipped to a laboratory or testing facility which is exempt under § 261.4(f) or has an appropriate RCRA permit or interim status.
- (vi) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:
 - (A) Copies of the shipping documents;
 - (B) A copy of the contract with the laboratory or testing facility conducting the treatability study;
 - (C) Documentation showing:
 - (i) The amount of waste shipped under this exemption;
 - (ii) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;
 - (3) The date the shipment was made;
 - (4) Whether or not unused samples and readiness were returned to the generator;
 - (v) The generator reports the information required under paragraph (e)(v)(C) of this section in its biennial report.
 - (3) The Regional Administrator, or State Director (if located in an authorized State), may grant requests, on a case-by-case basis, for quantity limits in excess of those specified in paragraph (e)(2)(i) of this section, for up to an additional 500 kg of non-acute hazardous waste, 1 kg of acute hazardous debris contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and
 - (ii) The mass of each sample shipment does not exceed 1000 kg of non-acute hazardous waste, 1 kg of acute hazardous waste, or 250 kg of soils, water, or debris contaminated with acute hazardous waste for each generated waste stream; and
 - (iii) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of paragraph A or B of this subparagraph are met.
- (A) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
- (B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:
 - (1) The name, mailing address, and telephone number of the originator of the sample;

treatability study to determine final specifications for treatment. The additional quantities allowed are subject to all the provisions in paragraphs (e)(1) and (e)(2)(ii)-(vi) of this section. The generator or sample collector must apply to the Regional Administrator in the Region where the sample is collected and provide in writing the following information:

- (i) The reason why the generator or sample collector requires additional quantity of sample for the treatability study evaluation and the additional quantity needed;
- (ii) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the data each previous shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;
- (iii) A description of the technical modifications or change in specifications which will be evaluated and the expected results;
- (iv) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and
- (v) Such other information that the Regional Administrator considers necessary.

(f) **Samples Undergoing Treatability Studies at Laboratories and Testing Facilities.** Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this part, part 124, parts 262-266, 268, and 270, or to the notification requirements of Section 3010 of RCRA provided that the conditions of paragraphs (f) (1) through (11) of this section are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to

CDR-ODR-C

PRIORITY

DATE: 020
TIME: 1815

PAAUZYUW RUCDNPB0220 0201558-UUUU--RUEANEW.

ZNR UUUUU

P 201432Z JAN 93

FM CDR PBA PINE BLUFF AR//SMCPB-SR//
TO RUEAUSA/CDR SERVICE RESP FORCE WASH DC
RUEPNIB/CDR AMCCOM ROCK ISLAND IL//AMSMC-CO/AMSMC-SR
/AMSMC-TMA//

RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//
RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD
RUWTNFA/CDR 546 EODCC FT SAM HOUSTON TX//TMO//
RHCGGIL/CDR 547 EODCC FT GILLEM GA//TMO//
RULGFBA/CDR 18TH ORD DET FT BRAG NC//TMO//
ZEN/CDR 52ND ORD DET PINE BLUFF AR//TMO//
RUEBBMA/CDR POPE AFB NC
RHDJAAA/CDR ANDREWS AFB MD
RUCDGDA/CDR MICOM REDSTONE ARS AL//AMSMI-RA-F0//
RULNAPG/CDR TECH ESCORT UNIT APG MD//SCBTE-OF/SCBTE-CO
/SCBTE-SS//
INFO RUEADWD/HQ DA WASH DC//DAMO-SWS/DAMO-SWC/DAMO-SMA-ECD/DACS-SF/
DAMO-ODL/SGPS-PSP/SAIG-TI/SFIL-CD/DAPE-HRE/DALO-TSF
/SAILE-EOSH//
RUKGNBA/CDR USA NCA FT BELVOIR VA//MONA-SU/MONA-CM//

PAGE 02 RUCDNPB0220 UNCLAS

RUKLDAR/CDR AMC ALEX VA//AMCCB/AMCSF-C//
RHCGSRB/CDR FORSCOM FT MCPHERSON GA//AFOD-OD/AFOF-TN//
RUEANEW/CDR CRDEC APG MD//SCBRD-ODR-C//
RULNAPG/USACMDA APG MD//SFIL-NSP/SFIL-CMZ/SFIL-NSZ//
ACCT DA-BHCWMA

BT

UNCLAS

SUBJ: REPORT OF ARRIVAL, CBDA #93-01
1. REFERENCE MSG, CDR SERVICE RESP FORCE WASH DC,
141828Z JAN 93, NOTIFICATION OF INTENT TO CONDUCT AN
EMERGENCY SHIPMENT.
2. SHIPMENT ARRIVED IN GOOD CONDITION AT PBA ON 15 JAN
93 AND PLACED IN STORAGE FACILITY AT 1437 HOURS.



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MATERIEL COMMAND
5001 EISENHOWER AVENUE, ALEXANDRIA, VIRGINIA 22333-0001

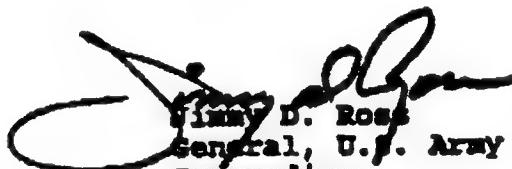
January 22, 1993

Dear General Friel, Soldiers, and Civilians:

Thanks so much for a great on-site visit to Operation Safe Removal. Your entire set-up is really impressive. My visit helped me to better understand the hardships of your task. The sensitive way you have dealt with the civilian community in meeting their needs is most commendable. The necessity to blend technology and rudimentary recovery techniques is in itself a formidable job. The professionalism and team effort displayed by everyone is deeply appreciated.

Thanks again for a great update. All of you are doing a super job.

Sincerely,



Jimmy D. Ross
General, U.S. Army
Commanding

A handwritten signature in black ink, appearing to read "Jimmy D. Ross". Below the signature, the rank "General, U.S. Army" and the word "Commanding" are printed in a smaller font.

Brigadier General George E. Friel
Federal On-Scene Coordinator/Response
Force Commander
Operation Safe Removal



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

MEMORANDUM FOR RECORD

23 JAN 1993

SUBJECT: Evacuation for Operation Safe Removal, Spring Valley

1. Although the policy I established for emergency evacuation of Spring Valley residents allowed all residents to return to their homes at 2100 hours each night and during the days we did not operate in the disposal pit, there were two exceptions.

2. I did not prohibit the families of and from returning to their homes at night, but I did recommend they not return because of the proximity to the excavation site and the fact that our operational site blocked any access by vehicle to their homes. Also the areas surrounding their homes is the work area for the site, including the soil removed from the pit, various equipment supporting the operation, and undiscovered contamination in the soil would/could be tracked into their homes/vehicles.

3. For these reasons I ask that they not return to their homes and certify that they be reimbursed for the reasonable expenses for residency elsewhere until we stop operations.

GEORGE E. FRIEL
Brigadier General, USA
SRF Commander



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE
January 23, 1993

Honorable Sharon Pratt-Kelly
Mayor of Washington, D.C.
441 Fourth Street N.W.
Washington, D.C. 20001

Dear Mayor Pratt-Kelly:

In recent days, emergency operations to remove items at the munitions disposal site in Spring Valley have been delayed periodically by the discovery of a few residents in the affected area who refuse to cooperate with the voluntary evacuation program. As Service Response Force Commander and Federal On-Scene Coordinator, I must insist upon complete evacuation of residents in the affected area during periods of actual removal operations to ensure the safety of all near-by residents in the event of an accident.

The positive response of a great majority of residents has been magnificent. Unfortunately, it only takes one resident who refuses to evacuate to halt removal operations. Out of concern for the safety and welfare of the citizens of Spring Valley, I cannot allow recovery actions to continue without one hundred percent evacuation by the affected residents. The failure of voluntary evacuation has caused needless delay and additional hardship for the entire community.

As a result, I need your help. Request you declare a community emergency and establish an emergency evacuation area of 300 meters around the site daily from 8:00am to 6:00pm. This will give law enforcement officials authority to order non-cooperative residents to leave their homes during the times of the limited evacuation. The residents in the affected area have been repeatedly briefed on the need for this evacuation and all have been evacuated before.

I also invite you to visit the emergency response site at a time convenient to you. We could show you the next munitions transport out by helicopter next Tuesday, estimated at 10:00am. If this is not possible, I would welcome the opportunity to come to your office and brief you on the operation.

Respectfully,



George E. Friel
Brigadier General
Service Response Force Commander/
Federal On-Scene Coordinator

*Proposed Text
is attached.*

DECLARATION OF EMERGENCY

I have determined that the emergency munition removal operation in the area of Spring Valley is of sufficient severity and magnitude to present an immediate threat to the health, safety, and welfare of the community and to warrant issuing an emergency executive order pursuant to District of Columbia Code Annotated Section 6-1504 (1992).

I, therefore, declare a community emergency to exist in Spring Valley, Washington, District of Columbia. In order to relieve the public emergency, the following measures are in effect:

I declare an emergency evacuation area of 300 meters around the munition disposal site daily between the hours of 8:00am to 6:00pm.

All persons not associated with the emergency response force will leave and remain away from the evacuation area during the designated time, and are prohibited from contacting or approaching such property.

The emergency evacuation area and the time of the evacuation may be modified by the Service Response Force Commander/Federal On-Scene Coordinator, as appropriate, to carry out the munition removal mission and to ensure the safety of all persons.

Officials of the District of Columbia have the authority to enforce this executive order. This authority includes the power to involuntarily remove persons from their homes and to exclude them from the evacuation area during the designated times.

This emergency executive order will remain in effect until the Service Response Force Commander/On-Scene Coordinator determines that the area is safe for persons to resume normal occupancy of their homes.

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01 06 230200Z JAN 93 00 00 UUUU

CDR SERVICE RESPONSE FORCE WASH DC
DIR ERDEC AG MD //SCBRD-TD/SCBRD-ODC/SCBRD-ODR-C//
CDR AMCCOM ROCK ISLAND IL //AMSMC-CO/AMSMC-SR/AMSMC-TMA//
CDR 549TH EODCC FR MEADE MD //TMO//
CDR 149TH ORD DET ANDREWS AFB MD //CDR//
CDR 546TH EODCC FT SAM HOUSTON TX //TMO//
CDR 547TH EODCC FT GILLEM GA //TMO//
CDR 18TH ORD DET FT BRAGG NC //TMO//
CDR 52ND ORD DET PINE BLUFF AR //TMO//
89 AW ANDREWS AFB MD //CC//
317 AW POPE AFB NC //CC/DO/LG//
CDR HQ GARRISON FT LEE VA //ATZM-CG//
CDR MICOM RSA AL //AMSMI-RA-CO/AMSMI-RA-EH-MP//
14 FTW COLUMBUS AFB MS //CC/DO/LG//
CDR USATC FT JACKSON SC //ATZCJ-CG//
CDR CML-MP CTR FT MCCLELLAN AL //CG//
CDR TEU AG MD //SCBTE-CO/SBCTE-OP/SBCTE-SS//

INFO

HQDA WASH DC //DAMO-SWS/DAMO-SWC/DAMO-SMA-ECD/DAMO-ODL//
DAMO-ODO-CAT/SGPS-PSP/SAIG-TI/SAILE-CD/DAPE-HRE/

BETTY PETERSON, SRF-OPS
(202) 282-0634

ROY S. WHITCOMB, LTC, GS, DSN 225-5505

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UNCLASSIFIED

02 06

JAN 93 00 00 UUUU

DALO-TSP/SAILE-EOSH//

CDR USANCA FT BELVOIR VA //MONA-SU/MONA-CM//

CDR AMC ALEXANDRIA VA //AMCCB/AMCSF-C//

CDR FORSCOM FT MCPHERSON GA //AFOD-OC/AFOP-TN//

CDR USACMDA APG MD //SFIL-NSP/SFIL-CMZ/SFIL-NSZ//

UNCLAS

UNCLAS

SUBJECT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT

1. IAW PL 91-123/91-443, CDR SERVICE RESPONSE FORCE, WASHINGTON, DC IS DIRECTING THE US ARMY TECHNICAL ESCORT UNIT TO CONDUCT AN EMERGENCY SHIPMENT OF HAZARDOUS WASTE SUSPECTED TO CONTAIN PHOSGENE (CG) AND TITANIUM TETRACHLORIDE (FM) FROM SPRING VALLEY, WASH DC TO PINE BLUFF ARSENAL, AR.

2. CBDA CONTROL NUMBER: CBDA #93-03.

3. ARMY AND AIR FORCE INSTALLATION ADDRESSEES ARE NOTIFIED TO STAND BY TO RESPOND IN AN EMERGENCY AS DEFINED IN INDIVIDUAL DISASTER CONTROL PLANS FOR THE DURATION OF THE FLIGHT THROUGH/NEAR THEIR GEOGRAPHIC AREA.

4. NOTE: THE SCHEDULE OF EVENTS IS AN ESTIMATE. ACTUAL TIMES WILL BE PROVIDED BOTH BY MESSAGE AND TELEPHONICALLY. SHOULD DELAYS OCCUR,

UNCLASSIFIED

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UNCLASSIFIED

03 06 JAN 93 00 00 UUUU

THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS WILL NOT CHANGE, ONLY THE TIMES AND DATES.

5. TRANSPORTATION RELEASE NUMBER: NONE

6. SHIPPING ORDER NUMBER: NONE

7. NAME OF CARRIER AND EXACT ROUTING:

A. UH-1 TAIL NUMBER: TBD

DEP SPRING VALLEY, WASH DC O/A 1000EST, 26 JAN 93

ARR ANDREWS AFB, MD O/A 1020 EST, 26 JAN 93

DEP ANDREWS AFB, MD O/A 1050 EST, 26 JAN 93

ARR SPRING VALLEY, WASH DC O/A 1110 EST, 26 JAN 93

DEP SPRING VALLEY, WASH DC O/A 1140 EST 26 JAN 93

ARR ANDREWS AFB, MD O/A 1200, 26 JAN 93

B. C23 TAIL NUMBER: TBD

DEP ANDREWS AFB, MD O/A 1300, 26 JAN 93

ARR POPE AFB, NC (REFUEL) O/A 1430 EST, 26 JAN 93

DEP POPE AFB, NC O/A 1515 EST, 26 JAN 93

ARR REDSTONE AAF, AL (REFUEL, RON) O/A 1630 CST, 26 JAN 93

DEP REDSTONE AAF, AL O/A 0830 CST, 27 JAN 93

ARR GRIDER FIELD, PINE BLUFF, AR O/A 1000 CST, 27 JAN 93

C. C47 TAIL NUMBER: TBD

UNCLASSIFIED

UNCLASSIFIED

04 06

JAN 93 00 00 UUUU

DEP GRIDER FIELD, PINE BLUFF, AR O/A 1030 CST, 27 JAN 93

8. CAR OR OTHER VEHICLE: NA

9. BILL OF LADING NUMBER: NA

10. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT IS AUTHORIZED BY CDR, OPERATION SAFE REMOVAL UP AR 50-6, PARA 5C(2), AND PUBLIC LAWS REFERENCED IN PARA 3, THIS MESSAGE.

11. BRIEF DESCRIPTION OF POTENTIAL CONTENTS AND METHOD OF PACKAGING:

A. BRIEF DESCRIPTION:

(1) 4.7 INCH SHELL, LIQUID FILLED, SUSPECT CG (4.27 LBS); SHELL IS BURSTERED AND CONTAINS 100 GMS EXPLOSIVE.

(2) 75 MM SHELL, LIQUID FILLED, SUSPECT CG (1.32 LBS); SHELL IS BURSTERED AND CONTAINS 35.45 GMS OF EXPLOSIVE.

(3) SMALL LIVENS PROJECTILE, LIQUID FILLED, SUSPECT FM (14 LBS); PROJECTILE IS BURSTERED AND CONTAINS 45 GMS OF EXPLOSIVE.

(4) LARGE LIVENS PROJECTILE, LIQUID FILLED, SUSPECT CG (28.7 LBS); PROJECTILE IS BURSTERED AND CONTAINS 95 GMS OF EXPLOSIVE.

B. PROPER SHIPPING NAME: AMMUNITION TOXIC, EXPLOSIVE 1.2K, POISON UN 0020.

C. PACKAGING: ITEM IS PLACED INTO A 4-6 MIL PLASTIC BAG WHICH IS CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE

UNCLASSIFIED

S:\22JAN\DBF-- ID# 1

207

UNCLASSIFIED

05 06

JAN 93 00 00 UUUU

SIZED SINGLE ROUND CONTAINER WITH VOIDS FILLED WITH VERMICULITE. THE CONTAINER IS SEALED BY A FLANGE AND LID, TWO CONCENTRIC O-RINGS AND 6 BOLTS. THE SINGLE ROUND CONTAINER IS PUT INTO A DOT 19B WOODEN BOX. SOME CONTAINERS MAY CONTAIN MORE THAN ONE ITEM.

D. CONFIGURATION:

EXACT QUANTITY AND CONFIGURATION WILL BE PROVIDED BY SEPARATE MESSAGE ON DAY OF SHIPMENT.

12. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC: 0/A 1000 EST, 26 JAN 93.

13. DATE AND TIME OF ARRIVAL AT PINE BLUFF ARSENAL, AR 0/A 1050 CST, 27 JAN 93.

14. NAME, GRADE AND SSN OF TECHNICAL ESCORTS:

NAMES WILL BE PROVIDED BY SEPARATE MESSAGE ON DAY OF SHIPMENT.

15. THE POC AND STORAGE CUSTODIAN AT PINE BLUFF ARSENAL IS: MR. DAVID HUDMAN, MATERIEL MANAGEMENT, SMCPB-MM, DSN 966-3622 (COM) (503) 540-3622.

16. THE POC FOR THIS ACTION IS MRS BETTY PETERSON OR MAJ LEN MOTZ, OPERATION SAFE REMOVAL, (202) 262-0634/0642 OR 1-800-331-1236 EXT 3635.

UNCLASSIFIED

S:\22JAN.DBF-- ID# 1

203

TOTAL F.06

25 Jan 1993

**OPERATION "SAFE REMOVAL"
Soil Sampling Plan**

1. SITUATION.

a. On 5 January 1993, while digging the trench to make the sewerage connection to a home under construction, a commercial real estate developer discovered a cache of potentially hazardous explosive and chemical munitions at a formerly used defense site located in the Spring Valley subdivision of Washington, DC.

b. Before the termination of the Emergency Response Phase, it is important to assure that the soil excavated from the pit during recovery operations does not pose an imminent threat to the residents of Spring Valley.

2. PURPOSE.

a. The primary purpose of this sampling plan is to develop sufficient analytical data to:

(1) Assure the safety of soil removed from the pit

(2) Assure that potential contamination has not been spread beyond the pit and the pile inadvertently during the recovery operation.

(3) Determine the naturally occurring background levels of metals in the soil to assure perspective during subsequent interpretation of data.

b. Another important purpose of this sampling plan is to develop trust and confidence in the data by:

(1) Having EPA oversee sample collection to assure the absence of bias.

(2) Having EPA analyze split samples for total metals and SEM (semivolatiles) and other site-related contaminants, at their discretion, to assure analytical accuracy.

3. SAMPLE MANAGEMENT.

a. Sampling Pattern.

(1) Locations.

(a) Primary Locations. In order to assure the safety of soil removed from the pit, samples shall be collected from the following:

1. Munitions pit (walls and floor)
2. Soil pile (sides and top)

(b) Lateral Locations. In order to assure that potential contamination has not been spread beyond the pit and pile, samples shall be collected from two heavily used locations and from several nearby water sources:

1. X-Ray tent
2. Decon tent
3. Surface streams
4. Dalecarlia reservoir
5. Nearby monitoring well

(c) Background Locations. In order to determine the background levels of naturally occurring metals in the soil, samples, from both surface and depth, shall be collected from the following locations:

1. Open areas astride 52d Place
2. Open areas near the reservoir

(d) Frequencies. Some samples shall be collected daily; others shall be collected weekly; still others shall be collected once. Specific frequencies are as follows:

(a) Munitions Pit. Samples shall be collected once per day immediately after first entry monitoring has verified the safety of the site each morning.

(b) Soil Pile. Samples shall be collected once per day immediately after first entry monitoring has verified the safety of the site each morning.

(c) X-Ray Tent. Samples shall be collected once per week at the discretion of EPA representatives.

(d) Decon Tent. Samples shall be collected once per week at the discretion of EPA representatives.

(e) Surface Streams. Samples shall be collected once from each of the nearby streams at the discretion of EPA representatives.

(f) Surface Reservoir. Samples shall be collected once from the nearby surface reservoir at the discretion of EPA representative.

(g) Monitoring Well. Samples shall be collected once from a nearby monitoring well at the discretion of EPA representatives.

(h) Open Areas near 52d Place. Samples shall be collected as directed by the EPA representatives.

(i) Open area near the reservoir. Samples shall be collected as directed by the EPA representatives.

(3) Number. Recognizing that the primary purpose of sampling is to assure the safety of the soil removed from the pit, a total of at least 14 samples shall be collected from the pit and pile. To assure the absence of spread, at least 5 samples shall be collected from the vicinities of the X-Ray and Decon Tents. In addition, at least 5 samples shall be taken from the various water sources in the immediate area. To assure adequate background data, at least 12 samples shall be collected from the various background sampling locations. The totals are as follows:

(a) <u>Munitions Pit.</u>	2/day X 10 days.....	20
(b) <u>Soil Pit.</u>	2/day X 10 days.....	20
(c) <u>X-Ray Tent.</u>	1/week X 3 weeks.....	3
(d) <u>Decon Tent.</u>	1/week X 3 weeks.....	3
(e) <u>Surface Streams.</u>	2 samples.....	2
(f) <u>Reservoir.</u>	1 sample.....	1
(g) <u>Monitoring Well.</u>	1 sample.....	1
(h) <u>Near 52d Place.</u>	9 samples.....	9
(g) <u>Near Reservoir.</u>	1 sample.....	1
	At least.....	50

(4) Type. The specific type of sample varies with the media to be sampled as follows:

- (a) Soil Samples. All shall be composite samples.
- (b) Water Samples. All shall be grab samples..

b. Sample Collection.

(1) Volume/Containerization.

(a) Soil samples. Soil samples shall be collected initially in 32 ounce glass jars, from which they shall be then transferred to a plastic bag for mixing to assure homogeneity, from which they shall be then transferred to two 8 ounce glass jars (which are teflon sealed) and two 40ml VCA vials (which are teflon sealed) for transport to laboratories.

(b) Water samples. Each water sample shall be collected in two 1 liter plastic bottles plus two 80 ounce amber glass bottles.

(2) Preservatives.

(a) Soil samples. Samples require no special preservatives, but shall be iced until shipped.

(b) Water samples. Water samples in the 1 liter bottles shall be preserved with Nitric acid. Preservatives are not required in the amber jars. However, they shall be iced until shipped.

(3) Identification.

(a) Soil samples. A unique identification number shall be assigned to each sample by the EPA representatives.

(b) Water samples. A unique identification number shall be assigned to each sample by the EPA representatives.

c. Sample Shipment

(1) Safety.

(a) Army Samples. Soil samples shall first be sent to Edgewood Research, Development, and Engineering Center (ERDEC) on Aberdeen Proving Ground, MD, for analysis of air space (above the soil in the container) to protect laboratory workers by assuring the absence of mustard agent. After verification of safety, the samples shall be forwarded to the ERDEC laboratory and to the Army Environmental Hygiene Agency laboratory which is also located on Aberdeen Proving Ground.

(b) EPA Samples. Soil samples destined for EPA laboratories shall be held until the air space has been verified by ERDEC, and then shipped to the EPA contract laboratory.

(2) Custody. All chain of custody documentation shall be secured to the inside lid of the cooler. Custody seals may be placed across the lid closure, as appropriate.

d. Sample Processing

(1) Splitting.

a. Soil samples. Soil samples shall be split immediately after collection, thereby permitting concurrent analysis by the EPA contract laboratory, ERDEC, and USAEHA.

b. Water samples. Water samples had already been collected prior to the preparation of this plan and, therefore, were processed by the EPA contract laboratory only. Subsequent water samples shall be split to permit concurrent processing by Army laboratories.

4. ANALYTICAL MANAGEMENT.

a. Constituents.

(1) Soil Samples. The constituents measured by each laboratory shall be as follows:

(a) EPA Contract Lab

1. BNA (semivolatiles) (see Appendix A)
2. Total metals (see Appendix B)
3. Other site-related contaminants

(b) Edgewood Research Development Engineering Ctr

1. Mustard
2. Extractable Arsenic
3. Total arsenic

(c) U.S. Army Environmental Hygiene Agency

1. Chloroacetophenone
2. Cyanogen chloride
3. Chloropicrin
4. Phosgene
5. Arsenic
6. Mercury
7. Lead
8. Chromium
9. Semivolatiles (BNA)
10. Other Total Metals
11. Explosive Compounds

(2) Water Samples. The constituents measured by the EPA contract laboratory are as follows:

(a) EPA Contract Lab

1. BNA (see Appendix A) (EPA Method 6250/70)
2. Total Metals (see Appendix B) (GMP Method)

b. Quality Assurance

(1) Certification.

(a) EPA Laboratory, Roy F. Weston, has been contracted by the Environmental Protection Agency and meets their quality assurance prerequisites.

(b) Edgewood Research, Development and Engineering Center is recognized as one of the best laboratories for analyzing mustard, lewisite, and adamsite.

(c) U.S. Army Environmental Hygiene Agency has been accredited/certified by:

American Industrial Hygiene Association
American Association for Laboratory Accreditation
National Institute of Standards and Technology/
National Voluntary Laboratory Accreditation Program

States of:

Alabama	New Hampshire
Arizona	New Jersey
California	New Mexico
Delaware	Pennsylvania
Georgia	Rhode Island
Idaho	Tennessee
Iowa	Utah
Kansas	Virginia
Maine	Washington
Michigan	

Environmental Protection Agency:

Region III	Philadelphia, PA
Region V	Chicago, IL
Region VI	Dallas, TX
Region VII	Kansas City, MO
EPA Environmental Monitoring Soils Laboratory, Las Vegas, Nevada	

Other Activities:

Participation in NIST/NAVLAP's
Soil Measurement Proficiency Program

(2) Split Samples. Soil samples shall be split by EPA representatives after collection to permit corroboration of results.

(3) Laboratory Practice. All laboratories shall continue to perform QA/QC procedures in accordance with good laboratory practice.

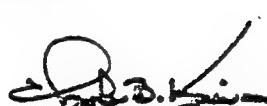
c. Data Evaluation.

(1) Comparison with Criteria. Concentrations of arsenic, mercury, lead, and chromium in the soil from the pit and pile shall be compared to the verification of emergency recovery phase termination criteria using a comparison of the pit/pile sample mean concentration with the established above criteria using a one-tailed t test at the 95% confidence interval in accordance with the EPA guidance provided in Soil Sampling Quality Assurance User's Guide, 2ed, EPA 600/8-89/046.

(2) Comparison with Background. In the event that the site soil arsenic or other metal concentrations exceed the emergency response phase termination criteria, the pit/pile mean concentrations shall be compared to the mean background concentrations using a one-tailed t test at the 95% confidence interval in accordance with the above reference.

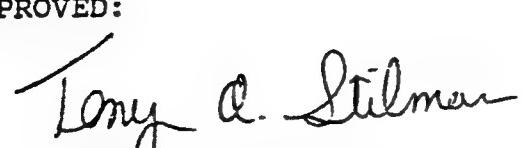
GEORGE E. FRIEL
EG, USA
Commander
Service Response Force

OFFICIAL:



CHARLES B. KENISON
COL, MS
Director, Special Staff

APPROVED:



TERRY A. STILMAN
Federal On-Scene Coordinator
EPA Region III

BASE NEUTRAL AND ENZYMATICALLY ACTIVE COMPOUNDS
TEST CUP LIST

NAME OF COMPOUND AND ENZYME TESTED
TEST CUP NUMBER

PHENOL	NAME	NAME
BIS(2-CHLOROSTYRENE)	ACETYL STYRENE	3-NITROBENZALIC ACID
2-CYANOSTYRENE	2-CHLOROPHENYLIC ACID	2-METHYLPHENOL
1,2-DICHLOROBENZENE	4-NITROCHLOROACID	2,4-DINITROCHLOROBENZENE
1,4-DICHLOROBENZENE	DIBROMOFURAN	1,4-DINITROBENZENE
BENZYL ALCOHOL	2,4-DINITROTOLUENE	1,2-DINITROTOLUENE
1,2-DICHLOROCARBONIC ACID	DINITRIFLUOROMETHANE	2-EUROBENZENE
2-BENZYLPHENOL	4-CHLOROGENYL-PHENYL ETHER	2,6-DI(2-CHLOROPHENYL)PHEONATE
BIS(2-CHLOROPHENYL)PHENYL ETHER	FLUORENE	4-CHLOROPHENYL-PHENOL
4-METHYLPHENOL	4-NITROBENZENE	N-ITANOSO-3,3,3-PROPYLAMINE
N-NITROSO-3,3,3-PROPYLAMINE	4,6-DINITRO-2-METHYLPHENOL	HEXA(4-MONOCHLORO)BENZENE
4-EUROCHLOROBENZENE	N-NITROSOCHLOROBENZENE	NITROBENZENE
4-BROMOPHENYL-FLUOROETHER	4-BROMOPHENYLIC ACID	2,4-DINITROBENZENE
HEXA(4,4,4,4,4,4-CHLOROBENZENE)	HEXA(4,4,4,4,4,4-BROMOBENZENE)	4-BROMOPHENYL-PHENYL ETHER
PENTACHLOROPHENOL	2,4-DINITROBENZYLPHENOL	HEXA(4,4,4,4,4,4-CHLOROPHENYL)BENZENE
PHENYLIC ACID	BENZODIOL	PENTACHLOROPHENYLIC ACID
ANTHRACENE	2,6-DI(2-CHLOROPHENYL)BENZENE	PHEONATE
2,2'-CHLOROBIPHENYL	DI-2-H-BUTYLPHENYLIC ACID	2,4-DINITROBUTYLIC ACID
FLUORANTHENE	1,4-TETRA(2-NITROPHENYL)	DI-4-BUTYLPHENYLIC ACID
PYRENE	NAPHTHALENE	FLUORANTHENE
BUTYLIC BIPHENYLIC ACID	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BUTYLIC ACID	PYRENE
1,2,4-TRICHLOROBENZENE	4-OXO-3,3,3,3,3,3-HEKOK	BUTYLENENEPHTHALIC ACID
NAPHTHALENE	2-METHYLNAPHTHALENE	3,3-DICHLOROBUTYLIC ACID
4-CHLORDIAMINE	HEXA(2,2,2,2,2,2-CHLOROBUTYL)DAMINE	2-EUROANTHRACENE
2,4-DICHLORDIAMINE	2,4-DICHLOROBIPHENYL	CARBOCAZEPINE
1,2,4-TRICHLOROBENZENE	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2,2-EUROBUTYLIC ACID
CHRYSENE	CHRYSENE	DI-4-OCTYLPHENYLIC ACID
2-EUROBENZYLPHENYLIC ACID	2,6-DI(2-CHLOROPHENYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
HEXA(2,2,2,2,2,2-CHLOROBUTYL)DAMINE	2,6-DI(2-CHLOROPHENYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
2,4,5-TRICHLOROBENZOL	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
2,4,5-TRICHLOROBENZOL	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
2-CHLOROQUINONE	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
2-NITROBENZENE	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
DINITRILPHENYLIC ACID	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
ACONITININE	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID
2,6-DINITROTOLUENE	HEXA(2,2,2,2,2,2-CHLOROBUTYL)BENZENE	2-EUROBUTYLPHENYLIC ACID



Aluminum	Antimony
Anitmony	Arsenic *
Arsenic *	Beryllium
Serium *	Cadmium *
Beryllium	Chromium *
Cadmium *	Copper
Calcium	Lead *
Chromium *	Mercury *
Cobalt	Nickel
Copper	Selenium *
Iron	Silver *
Lead *	Thallium
Magnesium	Zinc
Manganese	
Mercury *	
Nickel	
Potassium	
Selenium *	
Silver *	
Sodium	
Thallium	
Vanadium	
Zinc	

CLP - Chemical Laboratory Program
HCR - Hazardous Substance List

PP - Priority Pollutant
SEWA - Safe Water Drinking Act

28 Jan 93

**OPERATION "SAFE REMOVAL"
Soil Sampling Plan Amendment B**

1. SITUATION

During site operations surface water sources (rain water, water used during decontamination procedures and run-off from DC Fire Department equipment) have provided a possible pathway for the transport of contamination off-site. Surface water from these events is collected into a storm sewer which empties into an un-named creek, 1/4 mile north of the site.

Before the termination of Operation "Safe Removal", it is important to assure that no contaminants have migrated offsite and pose a potential threat to human health and the environment.

2. PURPOSE

The primary purpose of this sampling plan amendment is to assure no site contaminants have migrated offsite. Samples shall be analyzed for the same parameters mentioned in the Operation "Safe Removal" Soil Sampling Plan Section 4.a(1)(a) by EPA contract laboratory only.

3. SAMPLE MANAGEMENT

A. Locations

In order to assure that contaminants have not migrated offsite via storm sewer system, samples shall be collected at or near the point of discharge into the creek.

B. Frequency Of Collection

Samples shall be collected only once.

C. Sampling Procedures

Two types of samples shall be collected from the creek. The first type of samples shall be water samples. Water shall be collected in a 1 liter high density polyethylene (HDPE) bottle and in three 32-ounce glass, amber jugs. The sample collected in the HDPE bottle shall be preserved with nitric acid at a pH level of 2 or less.

The second type of samples shall be a creek sediment sample. Creek sediment shall be collected in an 8-ounce glass jar using a disposable plastic scoop.

All samples mentioned in this amendment shall be labeled.

A unique identification number shall be assigned to each mentioned sample by the EPA representatives.

Operation Safe Removal
Transportation Plan - Liquid Filled Rounds

25 January 1993

This plan supercedes plan dated 15 January 1993.

1. SITUATION

a. Various liquid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in special containers which meet DOT requirements for air shipment.

b. The rounds must be sent to an appropriate military installation for storage until final disposition can be accomplished.

c. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Military District of Washington
- (3) Pine Bluff Arsenal
- (4) U.S. Army Armament Munitions & Chemical Command
- (5) Edgewood Research Development Engineering Center
- (6) Dept of Health & Human Services
- (7) Department of Transportation

2. MISSION. To safely and expeditiously move suspect liquid filled rounds from the Spring Valley site from which they were recovered to Pine Bluff Arsenal, AR.

3. EXECUTION

a. Concept of movement. Liquid filled rounds will be moved by air in accordance with Department of Transportation (DOT) requirements under the control of the Technical Escort Unit to a transshipment site (Andrews Air Force Base) and ultimately to Pine Bluff Arsenal.

(1) The movement will be conducted in a manner so as to minimize the risk to the workers, the public and the environment.

(2) An Arkansas hazardous waste manifest will be used to document movement of the waste from Spring Valley to Pine Bluff Arsenal.

(3) A technical escort officer (TEO) will be responsible for the custody, safety, and security of the material during the movement. The technical escort officer will be assisted by a minimum of one other escort person.

b. Phase A - Spring Valley to Transshipment Site.

- (1) Packaging.

(a) Containerization. Liquid filled rounds will be packaged and certified in accordance with DOT requirements for air shipment.

(b) Configuration. Securing of the load within the aircraft will be in accordance with FAA requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Army pilots.

(3) Flight plan. The aircraft will fly using established Washington, D.C. air corridors to avoid populated areas to the maximum degree possible. The precise route is as follows: from Spring Valley directly to Clara Barton Parkway, then north following Clara Barton parkway to I-495, then east following I-495 to I-95, then south follow following I-95 to route 50; then south and west along route 50 to the junction of route 50 and Landover Road, then south to the Andrews AFB strip. See Appendix A.

(4) Documentation. An Arkansas hazardous waste manifest must be prepared prior to shipment.

(5) Contingency Planning. A chase helicopter will fly with the load carrying helicopter. The chase helicopter will carry three USA Technical Escort personnel trained in emergency response. The personnel will carry with them absorbent material, plastic sheeting, bleach and water.

c. Phase B - Holding/Transfer at Transshipment Site

(1) Security. Special security will be provided by the technical team accompanying the shipment in the escort helicopter. General security will be provided by Andrews AFB security personnel.

(2) Fire. Fire support will be provided by Andrews AFB. It will be in a standby mode during landing loading and takeoff.

(3) Medical. Medical support will also be provided by Andrews AFB. It will be a standby mode during landing loading and takeoff.

(4) EOD. EOD Support will be provided by the Technical Escort Unit. These people are specially trained in both explosive and decontamination techniques.

d. Phase C - Transshipment Site to Grider Field Pine Bluff, Arkansas.

(1) Transportation. Transportation will be by C23 Army aircraft operated by Army pilots.

(2) Flight path. Although the precise route may very because of weather, the proposed route is as follows: from Andrews AFB, MD to Pope AFB, NC, then to Redstone Arsenal, AL and then to Pine Bluff, Arkansas.

(3) Support Enroute.

a. Both Pope AFB and Redstone Arsenal have contingency plans for decontamination should problems occur. In addition escort personnel aboard the aircraft have been trained in explosive and decontamination procedures.

b. Select Army and Air Force installations along the route of flight have been alerted and told to have teams ready to respond should an accident occur in their area of responsibility.

e. Phase D - Grider Field to Pine Bluff Arsenal

(1) Transportation. Transportation will be by Army rotary wing aircraft operated by Army pilots. In addition to the load carrying aircraft there will be a chase aircraft with technical and security personnel.

(2) Flight path. The aircraft will fly directly from Grider Field to Pine Bluff Arsenal avoiding population concentrations.

(3) Security. Security onsite will be provided by municipal authorities in conjunction with Pine Bluff Arsenal security personnel.

(4) Fire. Fire support will be provided by Grider airfield. It will be on standby during landing loading and takeoff.

(5) Decontamination. Escort personnel are trained in decontamination procedures.

(6) Medical. Medical support will be provided via airfield, community and Pine Bluff Arsenal resources.

f. Phase E - Receipt at Pine Bluff Arsenal.

(1) Security. Security will be provided by Arsenal personnel.

(2) Authorization. The PBA RCRA permit was modified to allow storage of the specific materials taken from the Spring Valley site.

(3) Storage. Items will be stored in permitted hazardous waste storage facilities.

(4) Documentation. Hazardous waste manifest will be annotated to assure accountability.

4. Service Support.

a. Regulatory Approvals.

(1) PBA Permit Modification. Pine Bluff Arsenal modified their RCRA permit in order to accommodate the storage of these items.

(2) The Army obtained a generator's identification number from the District of Columbia to assure full accountability for items recovered during removal operations.

(3) The CBDA obtained DOT approval for the adequacy of their special single round containers for air shipment.

b. General Support.

(1) Security at Spring Valley. Washington, DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington, DC has provided excellent support during the hours of recovery operation.

(3) Medical Support at Spring Valley. Washington, DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure.

a. Rotary wing aircraft. The Army will use UH-1 and/or CH-47 aircraft for the short flights in populated areas especially Washington DC, because of their ability to land safely despite engine failure. If such an event should occur the escort helicopter will land near the downed aircraft will offer life saving decontamination or other emergency service and will secure the site until military response units arrive. Technicians riding in the escort helicopter are trained in emergency procedures.

b. Fixed wing aircraft. The Army will use either C-23 or C-130 aircraft for long distance flights. The C-23 will be used as the aircraft of choice because of their exceptional safety record. There has never been an operational mishap associated with this aircraft since it was acquired by the military services. Both planes have multiple engines thereby allowing them to reach a nearby airfield in the event of engine failure. However if a mishap were to occur response forces would

be sent from the nearest military installation.

(1) The following ordnance detachments along the route have been alerted:

149th Detachment....Andrews AFB
18th Detachment.....Ft Bragg
142nd Detachment....Ft McClellan

(2) The following military installations have been alerted to respond to an accident occurring in their area of responsibility:

Andrews AFB, MD
Ft Lee, VA
Pope AFB, NC
Ft Jackson, NC
Ft McClellan, AL
Redstone Arsenal, AL
Columbus AFB, MS
Pine Bluff Arsenal, AR

(3) Response and medical teams at all transient and destination airfields will be in a high state of readiness from 30 minutes prior to aircraft arrival until 30 minutes after aircraft departure from their location. (NOTE: Response capability can stand down at RON airfields after aircraft is secure for the night until 30 minutes prior to departure time the next morning.)

(2) Aircraft Fire. The escorts aboard the load carrying helicopter and aircraft are trained in firefighting as well as emergency decontamination enflight.

(3) Container leak. It is highly unlikely that packaging containers will leak. All munitions are surrounded in absorbant material within special containers and configured for maximum safety. All have been tested in accordance with DOT standards and have been used without problems. In the unlikely event of a leak the escort technicians riding with the cargo aircraft are trained in decontamination procedures and will be able to control the situation until the aircraft can land.

5. Command and Signal.

a. Phase A - Spring Valley to Transshipment Site. During the initial movement command and control will be provided by the SRF Headquarters at Spring Valley.

b. Phase B - Holding/Transfer at Andrews AFB. Command and control will be provided by SRF Headquarters at Spring Valley.

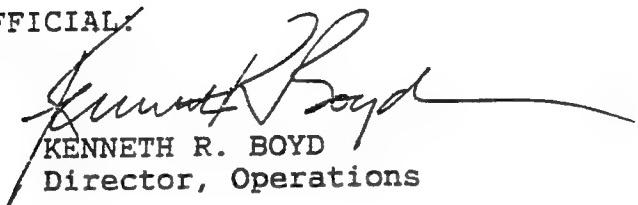
c. Phase C -- Transshipment Site to Grider Field Pine Bluff, AR. During shipment to Pine Bluff command and control will be provided by air traffic controllers enroute. In addition progress will be monitored by the SRF.

d. Phase D - Grider Field to Pine Bluff Arsenal. During the shipment from Grider Field to PBA command and control will be provided by PBA EOC. Progress will be monitored by the SRF.

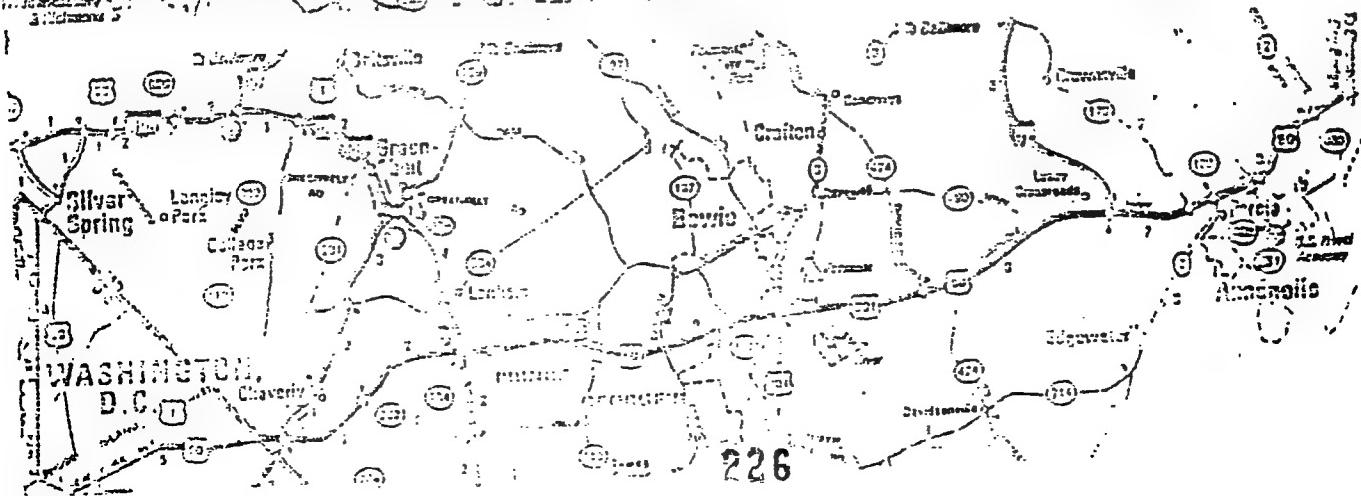
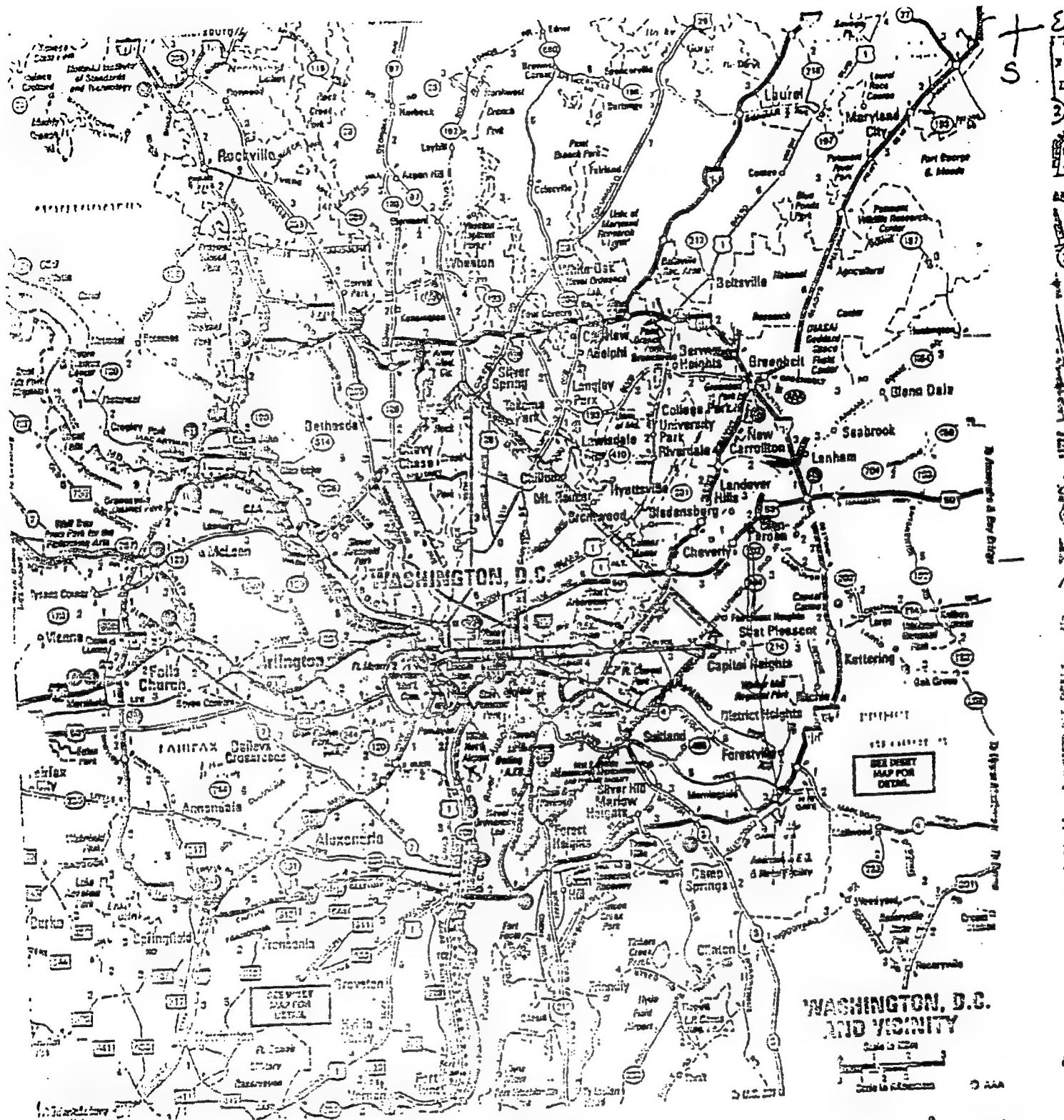
e. Phase E - Upon receipt of the items at PBA command and control will be provided by PBA EOC. Progress will be monitored by the SRF.

GEORGE E. FRIEL
BG, USA
Commander, Service Response Force

OFFICIAL:



KENNETH R. BOYD
Director, Operations



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graph TD
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    B -- Yes --> C[Quarantine]
    B -- No --> D[Business Being]

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graph TD
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    B -- No --> D[Business Being]

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Published in June 19
July 1994, India's
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DECISION. Based on the risk assessment, dated 23 Jan 93, the following safety precautions are directed to be implemented:

ENGINEERING CONTROLS

DATE IMPLEMENTED	CDR INITIALS	DESCRIPTION
<u>21 JAN 93</u>	<u>✓ JMS</u>	Provide local exhaust for the pit.

PERSONAL PROTECTIVE CLOTHING IN PIT

	Modified Level A
<u>_____</u>	Level A
<u>_____</u>	Level B
<u>26 JAN 93</u>	<u>✓ JMS</u> Level C with Saranex/Tyvek in Assessment Area A 5 METER WORK ZONE.
<u>_____</u>	Level C
<u>6 JAN 93</u>	<u>✓ JMS</u> Level D with Saranex/Tyvek for working in the area during routine excavation operations. Level C Level D be worn when handling any specific chemical munitions.
<u>_____</u>	

MONITORING

12 JAN 93 ✓ JMS The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

12 JAN 93 (1) Background low-level (bubbler) monitoring for lewisite.

12 JAN 93 (2) Breathing zone sampling for mustard using DAAMS tubes.

24 JAN 93 (3) Continuous background sampling for phosgene in the pit.

DATE CDR
IMPLEMENTED INITIALS

12 JAN 93

CDR

INITIALS

see above WTB

WTB The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

12 JAN 93 (1) Background low-level (bubblers) monitoring for lewisite.

12 JAN 93 (2) Breathing zone sampling for mustard using DAAMS tubes.

12 JAN 93

✓

The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

12 JAN 93 (1) Background low-level (bubblers) monitoring for lewisite.

12 JAN 93

✓

The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit.

WORK ZONES

By except¹⁰¹ 11 Jan 93 WTB Establish the pit as a special work zone for increased level of respiratory protection.
as required

5 JAN 93

WTB

Establish hot line /EPDS

5 Jan 93

WTB

Establish public exclusion area during operating hours.

✓ Do not establish the pit as a special work zone for increased level of protection.

Directed:

William T. Batt

William T. Batt
LTC, CM
Commander, TEU

Approved:


George R. Friel
BG, USA,
Commander, SRF
26 Jan 93

AMSCB-CO (385(A))

23 JAN 93

MEMORANDUM FOR RECORD

SUBJECT: Revised Risk Assessment for Safe Removal of Chemical Filled Unexploded Ordnance at the American University Chemical Warfare Center Site (Operation Safe Removal)

1. REFERENCES.

- a. Technical Paper No. 10, Methodology for Chemical Hazard Prediction, DDESB, June 1980.
- b. AR 385-61, The Army Toxic Chemical Agent Safety Program, 3 Nov 1992.
- c. AMCR 385-100, Safety Manual, 1 Aug 85.
- d. FM 3-9, Potential Military Chemical/Biological Agents and Compounds, 12 Dec 90.
- e. American University Data Base
- f. EA Tech Report, The Search for Toxic Chemical Agents, Benjamin Wittin, PHD, Nov 69.
- g. AR 385-64, Ammunition and Explosive Safety Program
- h. TM 9-1300-214, Military Explosive chemical Compounds
- i. TM 5-1300

2. PURPOSE. The purpose of this assessment is to update the 11 Jan 93 risk assessment developed in support of Operation Safe Removal. During the past ten days, enormous efforts have been made to continually review both the protective clothing and monitoring equipment on-site for this operation. The overall impact has been a reduction in the risk of chemical related injury. The safety and health of the soldiers and civilians charged with this mission is priority one. As with the 11 Jan 93 risk assessment, this update will show that the combination of protective clothing and area monitoring will provide the SRF Commander with options to minimize the risk of injury while performing operations under TEU SOP # TU-0000-M-013.

3. OPERATION DESCRIPTION.

- a. The Technical Escort Unit (TEU) has been given the task

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to expeditiously and safely recover, package, and remove exposed potentially explosive or chemically hazardous munitions or debris. This site was used during World War I as a site for the development of chemical warfare materiel.

b. The TEU continues to work under SOP NO: TU-0000-M-013, SOP For Explosive Ordnance Disposal (EOD) Response, 17 July 1992. To prevent personnel exposure a combination of protective clothing and general area/personal breathing zone monitoring is already being employed.

c. The range of potential chemical related munitions possibilities is defined in the 11 Jan 93 risk assessment and has not changed.

4. GENERAL SAFETY ANALYSIS.

a. The potential chemical hazards associated with this operation are numerous. At this point, the primary chemicals of concern are those traditionally used as fills for munitions. The chemicals of concern include mustard (H), lewisite (L), phosgene (CG), adamsite (DM), bromobenzylcyanide (CA), titanium tetrachloride (FM), chlorine (CL), bromoacetone (BA), cyanogen chloride (CK), sulfur trioxide-chlorosulfonic acid mixture (FS), chloropicrin (PS), fuming sulfuric acid and chloropicrin mixed with stannic acid (NC). The potential explosive hazards are 2,4,6 - Trinitrotoluene and Amatol.

b. Mustard (H). H is a vesicant or blister agent. Vesicants act on the eyes, lungs, and skin; and burn and blister the skin or any other parts of the body they touch. They damage the respiratory tract when inhaled and cause vomiting, diarrhea and a reduction in white blood cell count when absorbed. Some vesicants have a faint odor, others are odorless. They are often insidious in action and there is little or no pain at the time of exposure. Thus, in some cases, sign of injury may not be apparent for several hours. Of particular importance is the fact that mustard is a known human carcinogen and therefore must be handled IAW the strict standards for the use of these substances as well as those pertaining to surety materials. The freezing point of mustard is 58 degrees F.

c. Phosgene (CG). Below 47 degrees F, or under pressure in munitions, CG is a colorless liquid. It boils at 47 degrees and has the odor of fresh-cut hay. When inhaled, it irritates the lungs and causes pulmonary edema. The first symptoms noted in a strong concentration are: pronounced and almost uncontrollable

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coughing, together with a choking sensation, a feeling of tightness in the chest, occasional vomiting, headache, and lacrimation. The danger, however, lies in the fact that low concentrations that are not particularly irritating may, after an interval of several hours, produce serious respiratory symptoms and even death. Symptoms appearing after a time interval are difficulty in breathing, rapid pulse, weakness, coughing with watery expectoration, and cyanosis. (ref. 1c)

d. Chloropicrin (PS). PS is a pungent, colorless, oily liquid. It is very volatile and is usable during any season to produce incapacitating or lethal concentrations. PS is a powerful irritant whose vapors cause nose and throat irritation, coughing, and vomiting. As an eye irritant, it produces immediate burning, pain, and tearing. Even in very limited concentrations, PS causes the eyelids to close. In high concentrations, PS damages the lungs, causing pulmonary edema. In liquid form it causes severe burns on the skin that generally result in blisters and skin lesions. PS decomposes into chlorine gas and nitrogen oxide near open fires, producing additional toxic vapors. The freezing point of PS is -91 degrees F. (ref 1d)

e. Lewisite (L). L is an arsenical vesicant. It is a liquid with an odor of germaniums or very little odor when pure. It produces effects similar to mustard. One main difference is that L produces immediate pain. Liquid L causes immediate burning sensation in the eyes and possible permanent loss of sight. It has about the same blistering action on the skin as does H, even though the lethal dosage for L is much higher. Skin exposure to L produces immediate pain and reddening of the skin starts in 30 minutes. Blistering will be well developed in 12 - 13 hours. Skin burns are deeper from L exposure than from H. When inhaled in high concentrations, lewisite may be fatal in as short a time as 10 minutes. The freezing point of L is between -18 and - 0.1 degrees C depending on the purity. (ref 1d)

f. Cyanogen Chloride (CK). CK is a blood agent. It is a colorless, highly volatile liquid with a pungent, biting odor that will go unnoticed because CK is highly irritating to the eyes and mucous membranes. CK irritates the respiratory tract similar to phosgene; fluid may accumulate in the lungs much faster than in phosgene poisoning. CK is highly irritating to the eyes and mucous membranes. CK is a lethal agents due to interference with the use of oxygen by the body tissues. High concentrations may degrade the filter of protective masks and reduce the masks protective capabilities. The boiling point of

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CK is 55 degrees F. It will polymerize to form the solid cyanuric chloride which is corrosive. Impurities promote polymerization which could become explosive. (ref 1b)

g. Bromobenzylcyanide (CA). CA is a tear-producing compound. It produces a burning sensation of the mucous membranes and severe irritation and tearing in the eyes with acute pain in the forehead. It is a yellow solid or liquid, depending on temperature and purity. CA was the most powerful tear-producing agent used in World War I. (ref 1f)

h. Bromoacetone (BA). BA is a tear-producing compound. It is a colorless liquid. The boiling point is 135 degrees C (275 degrees F). It is a lachrymator and a vesicant as a liquid. It forms blisters which heal rapidly but are very painful. (ref 1e)

i. NC (Mixture of PS and Stannic Acid). Same effects as chloropicrin (PS).

j. Titanium tetrachloride (FM). FM is a heavy colorless liquid acid-type agent with a pungent odor. It can be readily detected by the large quantity of smoke produced when it leaks. It is used solely to produce smoke and has slight toxic effects; however, protective masks are required. Liquid FM will cause acid burns to the skin. Large quantities of smoke produce a choking sensation and causes difficulty in breathing, thus a protective mask is required for the comfort of the worker. Heavy concentrations in enclosed places can result in serious injury. The liquid can be removed with large quantities of water. In extremely heavy concentrations, canisters of protective masks may become clogged to such an extent as to render breathing difficult. If this occurs, mask or canisters must be exchanged for others in serviceable condition. Spillage can be removed by washing with large quantities of water. The freezing point of FM is - 11 degrees F. (ref 1c)

k. Sulfur trioxide-chlorosulfonic acid mixture (FS). This is a heavy liquid acid-type agent which fumes strongly in air and decomposes above 154 degrees F. It has an acrid odor. It is used solely as a smoke-producing agent. Exposure to heavy concentrations may cause severe irritation to the skin, eyes and respiratory tract. Inhalation of concentrated fumes causes coughing and strangulation, a feeling of constriction around the chest, burning of the nose and throat and hoarseness. When the mixture comes in contact with moisture, it forms hydrochloric acid and sulfuric acid. These acids are very corrosive to metals and fabrics. If FS is applied directly to the skin, a burning

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sensation is felt at once and an acid burn follows. Any FS mixture on the skin or clothing should be thoroughly wiped off with a dry cloth and the contaminated area flushed with large amounts of water. FS mixture is nonflammable, but may cause fires if spilled on flammable material, particularly under damp conditions. Spillage can be removed by washing with large quantities of water. Small quantities of water added to FS reacts violently. (ref 1c)

l. Adamsite (DM). DM is a vomiting compound. It produces strong pepper-like irritation in the upper respiratory tract, with irritation to the eyes and tearing. It causes violent uncontrollable sneezing; cough; nausea; vomiting; and a general feeling of bodily discomfort. DM is a solid (light yellow to green crystals). It produces its effects by inhalation or by direct action on the eyes. (ref 1d)

m. Fuming Sulfuric acid. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may be fatal as a result of spasm, inflammation and pulmonary edema. Reacts violently with water. (ref MSDS)

n. 2,4,6 Trinitrotoluene. Historical files show that Trinitrotoluene (TNT) was the standard fill for both the payloads and bursters in most of the candidate rounds. Although 50/50 amatol was also used as a fill for 75mm MK III HE projectiles, the quantity (1.61 lbs) was less than the TNT fill (1.66 lbs). Because amatol 50/50 is a little less impact and initiation sensitive than TNT, and only a little less stable than TNT, assumptions made about TNT munitions are accepted for Amatol 50/50 fill munitions. TNT is a yellow, crystalline compound with a molecular weight of 227.13, melting point of 80 to 81 degree C, and boiling point of 345 degree C. At ordinary temperatures TNT is essentially nonvolatile. TNT is one of the least sensitive of military explosives. Impact tests yield high values relative to other military explosives. TNT has high minimum detonating charge values from initiation by primary explosives. The presence of only 7% moisture prevents detonation by a #6 blasting cap. TNT is not classified as dangerous with respect to electric sparks. When ignited in free air, TNT dust burns completely without detonation. TNT shows no deterioration after 20 years of magazine storage. Therefore, it must be considered stable and does not deteriorate over time. TNT requires relatively high external stimuli to initiate detonation. An intact explosive train (detonation wave) is essential for initiation.

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c. To support safe chemical operations, safety zones of 10 meter (around the immediate pit), 150 feet (the hot line), and 300 meters (civilian evacuation zone) have been established. Each zone serves to control access and limit the potential exposure population.

5. HAZARD ANALYSIS.

a. Risk Assessment Codes. The risk assessment codes used in this document were taken from AR 385-10. A description of these codes is attached as enclosure 1.

b. Possible Chemical Scenario. As with the 11 Jan 93 risk assessment, the most likely exposure to the above chemicals is going to occur when TEU personnel are either digging in the soil around the site or when handling the munitions. Upon finding suspect chemical filled rounds, gross level checks (M18A2 and/or CAM) are made, the round is thoroughly examined, placed in plastic, X-rayed and finally placed in shipment containers for transport. In the event there is contact with a chemical agent or the detection of a chemical agent with monitoring devices, the operation would cease and the exposed personnel would be safely removed from the site to receive appropriate medical attention.

c. Chemical Risk Assessment. In defining the risk of exposure to the above listed potential chemical fills, one must look at possible routes of entry into the body and then determine the manner best suited to reduce potential exposure. The possible chemical agent hazards to be considered for this operation are: vapor to skin, liquid to skin, and inhalation of vapor.

(1) Dermal route of entry.

(a) Mustard and adamsite. The low temperatures at the site (averaging below freezing) significantly reduce the liquid and vapor to skin hazards for mustard and adamsite. Both of these compounds will be solid at current temperatures.

(b) CG, PS, NC, and BA. The toxicological literature has not shown passage into the body through the skin to constitute a significant hazard with these chemicals.

(c) Lewisite, fuming sulfuric acid, FS, and FM. The major dermal chemical hazards at this point are Lewisite, fuming sulfuric acid, FS, and FM. Lewisite at these temperatures could remain as a liquid and could permeate readily through most protective clothing and to the skin. Likewise fuming sulfuric

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acid, FS, FM and their degradation products, pose a significant acid hazard to the skin.

(d) In summary, the risk of chemical injury through dermal contact (either vapor or liquid) without protection is II-B, critical-probable.

(2) Respiratory route of entry.

(a) The overwhelming concern at this point of the operation is vapor inhalation from Lewisite, Phosgene, PS, CK, FM and NC. Calculations developed by Mr. Mike Myirski (enclosure 2) show that even a small release of a chemical agent like Lewisite will produce an area 10 meters in diameter that is above the Surgeon General's Airborne Emission Level (AEL).

(b) It is clear from the above scenario that the probability of vapor exposure through inhalation is probable because if there is a chemical agent release before it is visibly detected, the probability of a worker inhaling chemical agent vapors is high. Therefore the risk of respiratory contact with chemical agent vapors (i.e. Lewisite, Phosgene) without protection is I-B, catastrophic-probable.

(3) Reduction of the risk. The 11 Jan 93 risk assessment described three methods to reduce the risk of chemical agent injury. This assessment will recount the three and add a fourth. The methods follow:

(a) Engineering Controls. This concept is to reduce risk by containing or ventilating the hazard. The option of engineering controls is presently very limited at the Spring Valley site. The only viable engineering control available at this time is to provide a local exhaust system for the pit. This would eliminate many of the potential chemical vapor hazards in the pit. Unfortunately, this method will not remove all vapor hazards and would not negate the need for respiratory protection if a leaking round is encountered.

(c) Protective Clothing. This concept is to reduce risk by providing protective clothing and equipment to isolate the worker from the hazard. The options are as follows:

(1.1) Modified Level A. This ensemble is a M3 butyl rubber suit, boots, gloves, air hose sleeve with a M30 hood and Self-Contained Breathing Apparatus (SCBA). This ensemble is not a positive pressure system, but provides total

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body contact protection agent chemical agents. This ensemble is approved for Immediately Dangerous to Life and Health (IDLH) and is the DA Safety recommended (AR 385-61) level of protection for work in unknown environments to include work with suspect mustard and lewisite contamination. With the above level of protection, the risk of dermal chemical injury is II-E, critical and improbable. The respiratory chemical injury risk is I-E, catastrophic-improbable.

(1.2) Level A. This ensemble is a M3 butyl rubber suit, boots, gloves, hood with a M9 military mask. This ensemble is not a positive pressure system and is not approved for IDLH environments. It does however provide total body contact and respiratory protection against a wide range of chemical agents. With the above level of protection, the risk of dermal chemical injury is II-E, critical and improbable. The respiratory chemical injury risk is I-D, catastrophic-remote.

(1.3) Level B. This ensemble is a M3 butyl rubber suit, boots, gloves, apron and a M9 or M17 military mask. This ensemble provides dermal splash protection to the hands, arms, and front of body and feet. It provides respiratory protection against a wide range of chemical agents. With the above level of protection, the risk of dermal chemical injury is II-D, critical and remote. The respiratory chemical injury risk is I-D, catastrophic-remote.

(1.4) Level C. This ensemble consists of gloves, boots and the M9 or M17 military mask. This level provides dermal protection for the hands and feet. TEU has modified this level by adding Saranex/Tyvek chemical resistant body suits for additional dermal protection. It provides respiratory protection against a wide range of chemical agents. With Level C (with Saranex/Tyvek suit) the risk of dermal chemical injury is II-D, critical and remote. The respiratory chemical injury risk is I-D, catastrophic-remote.

(1.5) Level D. This ensemble consists of butyl gloves and boots with coveralls. A M9/M17 military mask is slung for emergency egress. This level provides dermal protection for the hands and feet. It provides no respiratory protection against chemical agents. TEU has modified this level by adding Saranex/Tyvek chemical resistant body suits for additional dermal protection. Level D (with Saranex/Tyvek suit) generates the following risk of dermal chemical injury is II-D, critical and remote. The respiratory chemical injury risk is I-B, catastrophic-probable.

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(b) Monitoring. This concept is to reduce risk by monitoring the air to provide warning of hazards. The options are as follows:

(1.1) First Entry Monitoring (FEM) of the pit is possible for mustard with the Real Time Analysis Platform (RTAP). The RTAP combines a gas chromatograph with an automatic continuous environmental monitoring system that collects compounds on a solid sorbent trap, thermally desorbs them into a capillary gas chromatography column, and detects the compound with a flame photometric detector. It is a low level monitor designed to respond to 0.003 mg/m³ for mustard in less than 15 minutes with alarm capability. Unfortunately, this method is good for one chemical agent, mustard, and has a 15 minute delay in response. This would not negate the need for respiratory protection if a round had been leaking before first entry.

(1.2) The RTAP also has the capability to provide continuous low-level real-time monitoring for mustard in the pit and to provide an on-site screening analytical capability (mustard and lewisite) for other samples (soil and air) from around the site. Unfortunately, this method is limited in the chemicals it can search for and has at least a 15 minute delay in response. This would not negate the need for respiratory protection if a leaking round is encountered.

(1.3) Another form of monitoring involves breathing zone sampling using Depot Area Air Monitoring (DAAMS) tubes. This method will document exposure to mustard, but unfortunately will not prevent exposure. These samples could be analyzed daily and will provide a low-level historical account of worker exposure.

(1.4) In the event TEU personnel suspect contamination with cyanogen chloride, phosgene, sulfuric acid, arsine or chloropicrin, Draeger detection tubes are available to provide area monitoring. This assessment can be made with the use of commercially available detection tubes for the materials. However, due to the target chemicals high volatility, effective capture of representative samples of suspect liquid is not assured. Unfortunately, this level of monitoring will not serve to prevent exposure, but will be used to document the presence of targeted chemical hazards in the area.

(d) Administrative Work Zones. The concept is to reduce overall risk by reducing the number of people at risk or by establishing different protective requirements from one zone

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to another. The calculations shown as enclosure 2 show a realistic Lewisite inhalation hazard within a 10 meter area around the pit in the event a spill were to occur. The work zone approach would create an area that could be marked off which would require all workers entering the area of concern to be an increased level of respiratory (i.e. SCBA/M17 mask) and dermal (i.e. butyl rubber suit) protection. This would reduce the risk of injury regardless of the chemical agents encountered. Workers outside this area would remain in Level D (mask slung) unless an emergency situation (i.e. leaking munitions) were encountered. This method will reduce the number of workers required to wear protective clothing by establishing levels of protection based on work location.

d. Explosive Risk Assessment.

1. Explosive Scenarios. Detonation of either a HE round, or of the TNT mixed in the soil are the possible two scenarios. Because of TNT stability, relatively high external stimulation initiation requirements, and total desensitizing to initiation by 7% moisture, detonation of loose TNT found mixed in the soil is not a credible scenario.

2. The remaining scenario is credible. Although the probability is low, a round could detonate during any of the following handling scenarios: during initial uncovering/excavation and handling within the pit; during assessment (identification) procedures; during packing; or shipment.

3. To date, 3" Stokes HE mortars, 3" WP Stokes Mortars, 75mm HE Projectiles, 75mm WP Stokes Mortar, and WP initiators are the likely identities of the recovered conventional munitions. Of these, the 3" Stokes HE mortar has the largest HE (2.5 lbs) and WP (1.6 lbs) payloads. The potential smoke and other solid fills would not generate detonation waves, and any resulting deflagration would be less hazardous than an HE detonation..

(a) The maximum amount of explosive contained in any explosive component of currently identified possible chemical rounds (3" Stokes mortar, 75mm projectile, and Levins projectile) is 100 grams.

(b) The rounds are handled one at a time. Therefore, any incident /detonation during handling or assessment would only involve one round.

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(c) Military fuzes have safety and arming devices. Unless these devices are damaged, removed (safety pins), missing (bore safe pins), or other indications that the round may have been fired, these rounds should not be armed. Some fuzes require stimuli close to normal functioning forces (set back) to arm undamaged fuzes. Range duds should have been detonated in place upon discovery in 1919 and not disposed of in the pit. Therefore, while remote there is a probability that armed fuzed munitions will be found during excavation activities. TEU personnel are EOD trained to identify and determine if fuzes are armed. They have specific instruction and techniques for handling armed munitions. Due to this training and the nature of TNT, there is only a remote probability that a round would detonate during assessment and handling. Due to the difficulty of initiation of TNT, the probability of round detonating should be significantly reduced for unfuzed HE rounds.

(d) Due to TNT's stability, lack of relative sensitivity, and difficulty of initiation, the greatest hazard will exist during any handling prior to determining if the fuze is armed and functional.

(e) Bursters installed in WP rounds would not create the overpressure that the HE rounds would produce. Any actions taken to protect personnel against the effects of a HE detonation would also protect personnel from the effects of initiation of a WP round.

(f) The detonation of a fuzed 3" Stokes HE mortar (highest HE fill of candidate rounds) during initial handling within the pit would be the maximum credible event. This scenario would also produce the probable maximum fragmentation hazard array and expose the most personnel.

4. Explosive Hazard Analysis.

(a) The accepted amount of overpressure that the human body can withstand and not suffer damage is 2.3 psi. Eardrums will rupture at 3.4 psi and lungs will rupture at 5.4 psi.

(b) Engineering controls are not a viable option at the site. There is no known portable remote control equipment which could perform the excavation and initial handling. Standard substantial dividing walls or barricades are not available or viable option to obtain. Pallets of bricks are

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available on site and could be positioned to act as shields around explosive storage location. These barricades should be effective in preventing low level fragments from striking the storage containers in the event of a explosion at another on site location. It is improbable that these makeshift barricades would contain the effects of a detonation within the storage container. The bricks would likely become secondary fragments. However, it is also improbable that stored rounds will spontaneous detonation with out an external stimulus based on the characteristics of TNT.

(c) Administrative controls are a effective means of limiting both the number of personnel exposed to the hazard and the severity of the hazard. Only the minimum number of personnel are allowed down range due to the potential explosive and chemical threat.

(d) Personnel protective clothing would provide only marginal additional protection. Flack jackets and military helmets would provide a measure of protection from fragments. However, the head would still be significantly exposed. The jacket should provide additional protection to most vital organs. However, nether provides protection from the expected overpressure which would be generated close to a high order detonation.

(e) Risk from found HE rounds. The primary hazard from the detonation would be the resulting overpressure. Separation of all but essential personnel from the explosives provides the best protection. Personnel exposed to 2.3 psi would not experience any harmful effect. Inhabited building distance (IHB) ensures that unprotected personnel are not subject to overpressure above 2.3 psi as the result of an unintentional HE detonation. Required IHB separation distance is determined by the equation $d = 40w^{1/3}$. Therefore, 58 feet is the minimum separation distance to unrelated personnel which would provide minimum protection from overpressure from the maximum credible event. For the expected quantity of HE (less than 100 lbs) that will be recovered during excavation, the regulatory default fragmentation safety distance (670') will protect personnel from both primary and secondary fragments. Nonessential personnel are required to evacuation from a 984' clear zone daily before operations can begin. Therefore, the risk of exposure of nonessential personnel (i.e., civilians) to harmful overpressure or fragments is assessed as I-E catastrophic - improbable.

(f) Assessment of chemical munitions explosive

AMSCB-CO (385 (A))

SUBJECT: Revised Risk Assessment for Safe Removal of Chemical Filled Unexploded Ordnance at the American University Chemical Warfare Center Site (Operation Safe removal)

risk. Detonation of 100 grams of TNT would produce predicted overpressures of 270 psi and 3.4 psi at 1.5 feet and 7.6 feet, respectively. This occurrence would be lethal to personnel handling the munitions, and as a minimum, rupture the ear drums of personnel within 7.6 foot radius. Primary and secondary fragment are also likely, but the overpressure is the far greater hazard to handlers. Risk assessed for operators in the immediate vicinity (with in 1.5 feet) if a chemical round detonate is I-A Catastrophic - frequent. At IHB distance (26 feet) predicted overpressures should be reduced to 2.3 psi and fragmentation would become the major risk. The walls of the pit should provide a measure of protection from low flying fragment. Therefore, the risk assessment for operators outside of the pit (a minimum of 30 feet from the detonation) is I - D Catastrophic - remote

(g) Assessment of maximum credible event.
Detonation of a HE round would have the same results for personnel in the immediate area as a chemical round, but would increase to ear rupture zone to approximately 54' and IHB distance (2.3 psi) to 58 feet.

(h) Intraline separation distance prevents the detonation wave from initiating other rounds in the area. The formula $d = 18w^{1/3}$ will provide safe separation distance between the operations explosive locations. The maximum credible event's net explosive weight (NEW) (2.5 lbs) would require a minimum of 26 feet between the pit, assessment, and storage locations to prevent propagation between explosive sites. Current separation between these site exceed this requirement. Risk of propagation is assessed as I-E catastrophic - improbable.

(i) Risk from primary and secondary fragmentation to civilian personnel. A fragmentation hazard is also associated with the HE and Chemical rounds. The DOD default separation distance to protect personnel from hazardous primary fragments resulting from an unplanned detonation of 100 lbs or less of HE is 670 feet for thin skin munitions. The established civilian evacuation zone is 300 meters which exceeds separation requirements. Risk to the civilian population from primary fragmentation is assessed as I-E catastrophic- improbable. Placement of makeshift barricades should restrict and limit the array of random fragments within the immediate area. Houses under construction and standing finished housed should also limit the distribution of low level fragments. Risk to operational personnel outside of the pit is assessed as I- D catastrophic - remote.

AMSCB-CO (385 (A))

SUBJECT: Revised Risk Assessment for Safe Removal of Chemical Filled Unexploded Ordnance at the American University Chemical Warfare Center Site (Operation Safe removal)

6. SRF SAFETY RECOMMENDATION. In an effort to minimize the number of hazards to the least number of people for the least amount of time, SRF Safety recommends the following:

a. With respect to engineering controls, recommend the local exhaust ventilation system for the pit be installed.

b. With respect to protective clothing, we have considered the TEU Commander's concern with respect to potential increased risk to personnel during handling of possibly armed/fuzed munitions due to a loss of visual acuity while wearing a mask. These concerns were weighed against the fact that TEU personnel are EOD certified while wearing the protective mask. Based on this assessment we have determined that the presence of a significant risk of chemical exposure requires the use of Level C with Saranex/Tyvek suit. This level of protection is contingent upon aggressive monitoring in the pit. If monitoring indicates the area exceeds established AELs, the level of protection would have to be reassessed.

c. With respect to monitoring, recommend the RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

(1) Background low-level (bubblers) monitoring for lewisite.

(2) Breathing zone sampling for mustard using DAAMS tubes.

(3) Continuous background sampling for phosgene in the pit.

d. With respect to work areas, recommend three work zones be developed as follows: operating pit, hot line, and public exclusion area.

George Collins

George Collins
SRF Safety

Gregory Mason

Greg Mason
SRF Safety

		INJURY POTENTIAL	
PROTECTIVE CLOTHING TYPE		DERMAL	RESPIRATORY
LOWEST RISK	MODIFIED LEVEL A	II-E	I-E
	LEVEL A	II-E	I-D
	LEVEL B	II-D	I-D
	LEVEL C WITH SARANEX/TYVEK SUIT	II-D	I-D
	LEVEL C	II-C	I-D
	LEVEL D WITH SARANEX/TYVEK SUIT	II-D	I-B
HIGHEST RISK	LEVEL D	II-C	I-B

RISK ASSESSMENT CODE DESCRIPTIONS

HAZARD SEVERITY DESCRIPTIONS:

DESCRIPTION	CATEGORY	MISHAP DEFINITION
CATASTROPHIC	I	DEATH OR SYSTEM LOSS.
CRITICAL	II	SEVERE INJURY, SEVERE OCCUPATIONAL ILLNESS, OR MAJOR SYSTEM DAMAGE.
MARGINAL	III	MINOR INJURY, MINOR OCCUPATIONAL ILLNESS, OR MINOR SYSTEM DAMAGE.
NEGLIGIBLE	IV	LESS THAN MINOR INJURY, OCCUPATIONAL ILLNESS, OR SYSTEM DAMAGE

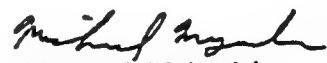
HAZARD PROBABILITY DESCRIPTIONS:

DESCRIPTION	LEVEL	DEFINITION
FREQUENT	A	LIKELY TO OCCUR FREQUENTLY
PROBABLE	B	WILL OCCUR SEVERAL TIMES
OCCASIONAL	C	LIKELY TO OCCUR SOMETIME
REMOTE	D	UNLIKELY BUT POSSIBLE TO OCCUR
IMPROBABLE	E	SO UNLIKELY, IT CAN BE ASSUMED OCCURRENCE WILL NOT BE EXPERIENCED

15 January 1993

Potential Airborne Exposure to Lewisite and Mustard During Operation Safe Removal

1. This analysis considers the potential unearthing of liquid Lewisite (L) and mustard (H) during excavation of the chemical munitions disposal pit. It compares the expected airborne vapor concentration from computer models to the accepted exposure limit of 0.003 mg/m³ (both agents).
2. A matrix approach is employed using a range of potential liquid agent amounts, windspeeds, and temperatures. The expected windspeeds for Operation Safe Removal range from calm to 20 mph and the temperatures from 15-55 F. As a first cut, four different agent amounts were assumed: 1, 4, 8, and 16 fluid ounces.
3. Note: H freezes at about 58 F (14.5 C). Since its freezing temperature is greater than the expected maximum temperature, agent H would not be expected to produce any vapor challenge during excavation. However, it still presents a potential contact hazard.
4. In using the D2PC model to determine both evaporation rates and downwind dispersion of the evaporating agent, it was determined that very little liquid agent is required to produce an AEL concentration close to the source. For instance, only one fluid ounce of Lewisite (56 grams) exposed to air for five minutes at 15 F is required to produce an AEL at a downwind distance of 20 meters. Model results estimate that as little as 1/4 ounce (14 grams) produces a hazard distance to 10 m.
5. Since the 15 F temperature will likely be exceeded and larger amounts of liquid agent than 1/4 ounce may be uncovered in the pit, airborne concentrations which exceed the AEL for Lewisite could be expected for virtually all weather conditions during Operation Safe Removal.
6. This analysis assumes the purity of the agent to be 100%, probably a very conservative assumption given the age of the material. Field concentrations and hazard distances would be lower.
7. It is recommended that Tech Escort strongly consider the use of protective vapor masks during excavation of the pit to prevent potential exposure to Lewisite vapor.


Michael Myrski
Hazard Analysis

J
Operation Safe Removal
Transportation Plan - Solid Filled Rounds

26 Jan. 93

This Transportation Plan supercedes plan dated 15 Jan. 93.

1. SITUATION

a. Various solid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in containers which meet DOD requirements for air shipment. These consist of empty, high explosive, and white phosphorus filled rounds.

b. The rounds must be sent to an appropriate military installation for disposition by explosive detonation.

c. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Military District of Washington
- (3) Ft A P Hill, Bowling Green, VA
- (4) U.S. Army Armament Munitions & Chemical Command
- (5) Edgewood Research Development Engineering Center
- (6) 67th Ord Detachment (EOD)
- (7) Dept of Health & Human Services
- (8) Department of Transportation
- (9) Environmental Protection Agency
- (10) Washington DC Departments of Emergency Medical Service, Police, and Fire.

2. MISSION.

To safely and expeditiously move solid filled rounds from the Spring Valley site from which they were recovered to Ft A P Hill, Bowling Green, VA, for disposal.

3. EXECUTION

a. Concept of movement. Solid filled rounds will be moved by air in accordance with Department of Defense (DOD) requirements under the control of the USA Technical Escort Unit with 67th Ordnance Detachment (EOD) assistance to Ft A. P. Hill.

(1) The movement will be conducted in a manner so as to minimize the risk to the workers, the public, and the environment.

(2) An emergency Virginia hazardous waste manifest will be used to document movement of the waste from Spring Valley to Ft A. P. Hill.

(3) A 67th EOD detachment officer will be responsible for the custody, safety, and security of the material during the movement. He will carry personnel decontamination materials to

include vermiculite, bleach, plastic, etc.

b. Mission - Spring Valley to the Ft A P Hill, Bowling Green, VA Upper Zion demolition site.

(1) Packaging.

(a) Containerization. Solid filled rounds will be packaged and certified in accordance with DOD requirements for air shipment. Rounds are wrapped in foam and/or fiber board and securely positioned in a wooden ammunition box. Quantity of rounds per box will be determined by size of round relative to available space in the box. The foam and/or fiber board prevents metal to metal contact. The secure positioning is fabricated to provide protection of the fuse.

(b) Configuration. Securing of the load within the aircraft will be in accordance with DOD requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Department of the Army pilots.

(3) Flight Plan. The aircraft will fly using a route down the Potomac River to the vicinity of Fairview Beach (where the Potomac makes a bend to the East), and then south to the demolition area of Ft A P Hill. This routing will avoid populated areas and accommodate the range of the aircraft without a refuel stop, as refueling with explosives aboard is inappropriate from a safety perspective.

(4) Documentation. A Virginia hazardous waste manifest will be prepared prior to shipment.

(5) Security. The impact area at Ft A P Hill is always secured. Entrance to the impact area is for demolition work only.

(6) Fire. Fire support will be provided by Ft A P Hill. It will be in a standby mode during landing.

(7) Medical. Medical support will also be provided by Ft A. P. Hill. Two Medics and a tactical ambulance will be at the site during landing and demolition operations.

(8) EOD. EOD Support will be provided by the 67th Ord Det (EOD) located at Ft A. P. Hill. These people are specially trained in explosive ordnance operations.

4. SERVICE SUPPORT.

a. Regulatory Approvals.

(1) The Army obtained a generator's identification number from the District of Columbia to assure full

accountability for items recovered during removal operations.

(2) Ft A. P. Hill has obtained an emergency hazardous waste destruction and storage permit. The storage portion of the permit is to allow storage if weather does not permit destruction of the items immediately.

b. General Support.

(1) Security at Spring Valley. Washington DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington DC has provided excellent support during the hours of recovery operation.

(3) Medical Support at Spring Valley. Washington DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure. Rotary wing aircraft. The Army will use UH-1 aircraft for the flights because of its ability to land safely despite engine failure.

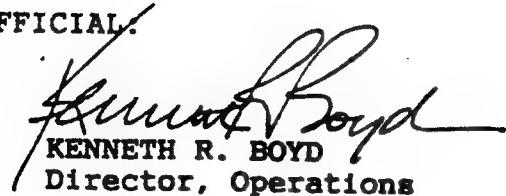
(2) Aircraft Fire. Crew of chopper is trained in fire fighting, and EOD will augment the helicopter crew.

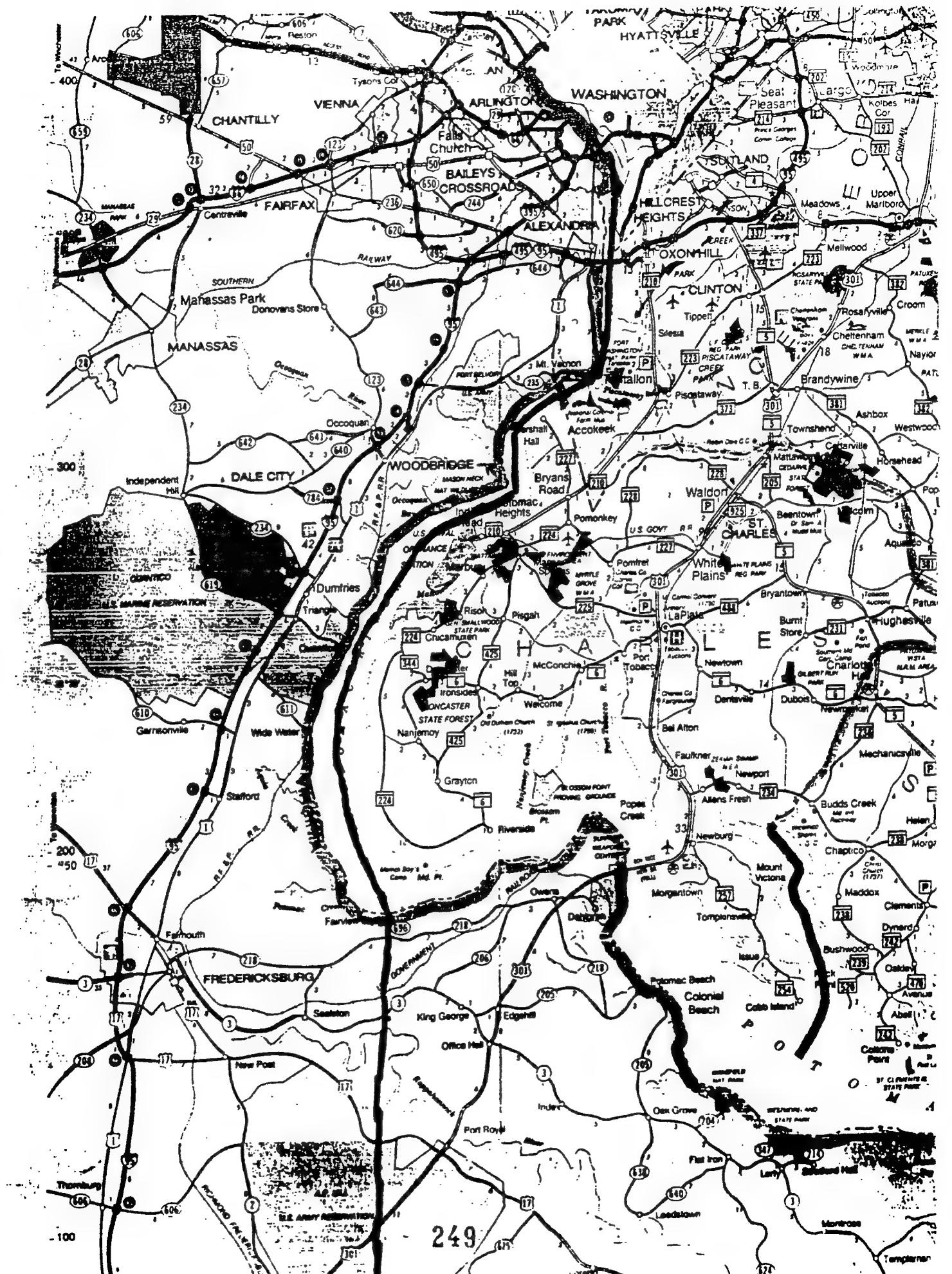
5. COMMAND and SIGNAL.

Spring Valley to Ft A. P. Hill. During the movement, command and control will be provided by the SRF Headquarters at Spring Valley.

GEORGE E. FRIEL
BG, USA
Commander, Service Response Force

OFFICIAL


KENNETH R. BOYD
Director, Operations



26 Jan 93

4

Operation Safe Removal
Spring Valley Munitions Recovery

Supplemental Information for the Permit for Destruction of HE and
WP Rounds at Ft. AP Hill

1. Situation. There is a need to dispose of rounds determined to be HE and WP filled which were recovered from the munitions recovery site at Spring Valley. It is believed that the current screening effort is highly effective at assuring the absence of agent.

2. Background. The Cdr, Tech Escort Unit is continuing recovery and evaluation of rounds at Spring Valley. The fill in many items can be determined with a very high degree of certainty based on the type of round, its appearance, x-rays, and a new, state-of-the-art technology known as Portable Isotopic Neutron Spectroscopy (PINS). Approval is being sought to treat (destroy) rounds determined to be HE or WP.

3. Classification of Rounds. This section describes the logic which leads to the determination that rounds proposed to be sent to Ft. AP Hill are HE or WP filled.

a. Initial evaluation. Recovered rounds are initially separated into two classes, liquid filled and solid filled.

b. Liquid. Liquid filled rounds are considered to be potential chemical agent and are shipped to Pine Bluff Arsenal.

c. Solid. Solid filled rounds may contain a variety of fills and additional work is performed to narrow down the list of possible fills. The list of possible fills was determined based on the chemicals known to be in existence during the WWI timeframe and in use by the Army at Camp American University. A historian on site at the Spring Valley has research available records to obtain this information.

i. Solid filled rounds are warmed to a temperature where two chemical agents, mustard and bromobenzylcyanide, would melt. If the contents of such a round becomes liquid, the round is then reclassified as liquid filled, potentially agent.

ii. The remaining solid filled rounds are evaluated using the PINS. The objective of this evaluation is to separate rounds containing HE or WP from solid filled rounds containing other materials such as adamsite, lewisite, and chloroacetophenone. The PINS can readily detect chlorine atoms. Agent related solids including adamsite, lewisite, and chloroacetophenone from the WWI timeframe contain chlorine. If chlorine is detected by the PINS,

Operation Safe Removal
Spring Valley Munitions Recovery

the round will be considered potential agent and will not be sent to Ft. AP Hill, but will be sent to Pine Bluff Arsenal with the liquid filled rounds.

iii. Plans are to destroy the solid filled rounds with no chlorine signature at the demolition range at Ft AP Hill. The 67th EOD detachment will destroy the rounds in a manner which will totally consume the fill.

iv. In the highly unlikely event the round contained a military unique chemical, the detonation will destroy the molecules of the fill. The Army will conduct soil sampling of the area after the detonation. If the results show statistically higher levels of contaminants in the soil, the contamination will be defined and cleaned up.

4. Details about Rounds to AP Hill

a. Plans are to transport all HE and WP rounds to Ft. AP Hill via Army helicopter. Decon and monitoring teams will accompany the shipment.

b. The detonation will be performed by personnel of the 67th EOD. After the detonation, the monitoring team will monitor the area using an M18 kit. In the highly unlikely event anything is detected, the decon team will decon the area and re-monitor. When the monitoring is negative, the soil samples will be taken for analysis.

c. Rounds proposed to be sent on 26 Jan are 8 ea 75 mm projectiles. If detonation of the above 8 is conventional HE and WP as fully expected, additional rounds will be identified for shipment to Ft AP Hill later in the week.



GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

26 Jan 93

Operation Safe Removal
Spring Valley Munitions Recovery

Supplemental Information (2) for the Permit for Destruction of HE and WP Rounds at Ft. AP Hill

1. Historical Search. In addition to the procedural screening steps referred to in the memorandum sent earlier today, it is appropriate to discuss the historical search which ruled out the possibility of any organophosphorous or dimethyl sulfide compounds in WWI rounds. Fortunately, such technology did not emerge until WWII or beyond.

2. Destruction/Dispersion. Explosive ordnance techniques assure sufficient temperature, over 3,000 degrees K, to guarantee molecular destruction of any chemical agent. Given the 2 mile buffer zone between the detonation site and the public domain, dispersion would guarantee no risk to the public.

3. Emergency Decontamination. In the highly unlikely event of agent contamination resulting from the detonation, emergency ordnance disposal personnel with special training and special equipment will be on hand as part of the disposal effort. They will accompany the munitions from Spring Valley to Ft. AP Hill.

4. Safety of Personnel on Site. All operators are EOD certified. Operations will be performed in accordance with Safety approved SOPs for demolition procedures. Implicit in those procedures are the calculations of standoff distances for the amount and configuration of explosive used to assure safety of personnel on site. Every individual participating will have a protective mask.

5. Hopefully the above will verify the precautions we will take to protect the people and environment of Virginia.

GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

Official:

CHARLES B. Kenison
COL, MS
Dir, Special Staff

Operation Safe Removal
Soil Sampling Plan for Ft A.P. Hill OD Range

1. Situation.

a. World War I munitions are being recovered from a site in Spring Valley, NW Washington, DC. They are being evaluated by various means in an attempt to identify the potential fill. Disposition of rounds is determined based on the potential fill.

b. Rounds identified as containing HE or WP will be detonated at Ft. AP Hill.

2. Purpose. Soil sampling is being performed to provide data to confirm the absence of any residual contamination from the detonation of rounds determined to be HE or WP.

3. Sample Management.

a. Sampling Pattern.

(1) Location. The location for placement of the rounds will be determined by 67th EOD personnel and will be marked with stakes. Samples will be taken from the center point and from North, East, South, and West points on concentric circles surrounding this center point as shown in figure 1.

(2) Number. A total of 4 samples will be taken; one from the center point and composites from circles 10, 20, and 30 feet from the center. Samples on a given circle will be combined into a composite sample.

(3) Frequency. Background samples will be taken once prior to the round detonation operation. Followup samples will be taken once after the detonation.

b. Sample Collection.

(1) Volume/Containerization. Soil samples shall be collected initially in 32 ounce glass jars from which they shall be then transferred to a plastic bag for mixing to assure homogeneity, from which they shall be transferred to two 8 ounce glass jars (which are teflon sealed) and two 40 ml VOA vials (which are teflon sealed) for transport to laboratories.

Operation Safe Removal
Soil Sampling Plan for Ft A.P. Hill OD Range

(2) Preservatives. Samples require no special preservatives.

(3) Identification. Samples shall be identified and labelled as shown in table 1.

c. Sample Shipment. Samples will be sent to the Edgewood Research, Development, and Engineering Center and the U.S. Army Environmental Hygiene Agency for analysis. Split samples will also be sent to an EPA contract lab for verification of the Army analysis.

4. Analytical Management. The constituents measured by each laboratory shall be as follows:

a. Edgewood RD&E Center

1. Extractable arsenic
2. Total arsenic

b. U.S. Army Environmental Hygiene Agency

1. Choroacetophenone
2. Cyanogen chloride
3. Chloropicrin
4. Phosgene
5. Arsenic
6. Mercury
7. Lead
8. Chromium
9. Semivolatiles (BNA)
10. Other total metals

c. Verification by EPA Contract Lab

1. BNA (semivolatiles)
2. Total Metals

5. Data Evaluation. Levels of analytes shall be compared to the mean background concentrations using a one-tailed t test at the 95% confidence interval in accordance with the EPA guidance provided in Soil Sampling Quality Assurance User's Guide, 2ed, EPA 600/8-89/046.

Operation Safe Removal
Soil Sampling Plan for Ft A.P. Hill OD Range

Table 1.

SAMPLE NUMBER	COMPOSITE OF
AP1	-
AP2	AP2A + AP2B + AP2C + AP2D
AP3	AP3A + AP3B + AP3C + AP3D
AP4	AP4A + AP4B + AP4C + AP4D
AP5	AP5A + AP5B + AP5C + AP5D
AP6	AP6A + AP6B + AP6C + AP6D

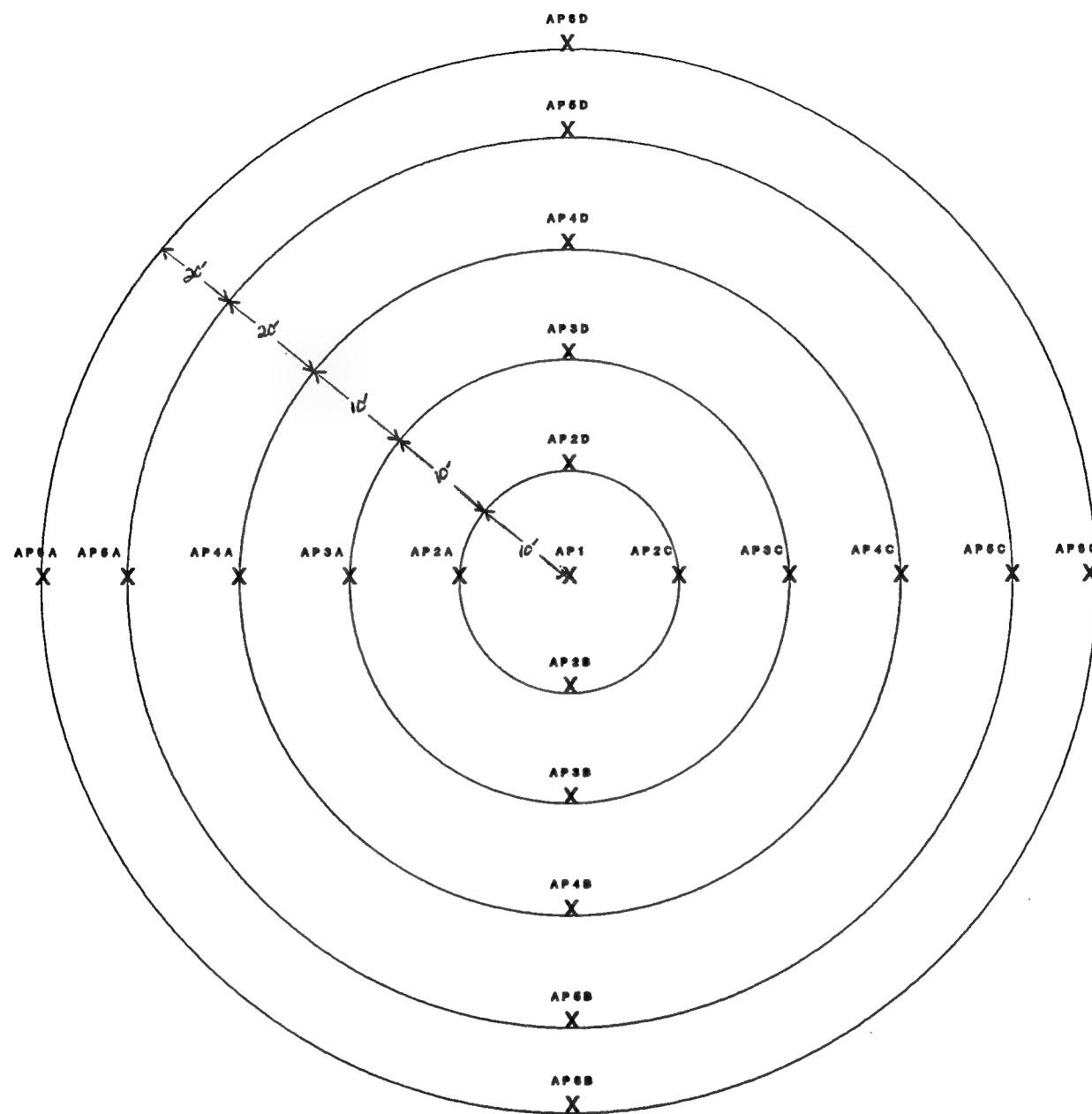
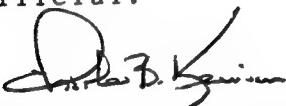


FIGURE 1

Operation Safe Removal
Soil Sampling Plan for Ft A.P. Hill OD Range

GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

Official:


CHARLES B. Kenison
COL, MS
Dir, Special Staff

Approved:


Terry A. Stilman
Federal On Scene Coordinator
EPA Region III



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

27 Jan 93

MEMORANDUM FOR OPERATION SAFE REMOVAL STAFF

SUBJECT: SRF at the Spring Valley Recovery Site (Operation Safe Removal), Commander's Policy (Rules of Engagement)

1. CARDINAL PRINCIPLE - MINIMIZE. The guiding principle is to minimize potential exposure by limiting the minimal number of personnel, for a minimum time, to the minimum amount of explosive or toxic chemical hazards within operational constraints. At no time will personnel or environmental safety be compromised for operational expediency. All other guidelines will be based on and adhere to this principle.
2. ESTABLISH ZONES. Upon arrival on site, the establishment of exclusion zones (i.e., site, hot line, and public exclusion area) based on the best available meteorological data and probable munitions involved will be the 1st priority of the initial responding unit.
3. PRESUME THE WORST. During all contact with any suspect munitions and or intact container, it will be assumed that the explosive and/or toxic chemical hazard is still viable until proven otherwise by accepted, proven visual identification, monitoring, or assessment procedures. All operations will be IAW Standing Operational Procedures, either oral or written, which are based on and IAW the policies and procedures taught by the Naval School, Explosive Ordnance Disposal (EOD), Indian Head, MD, appropriate T.M. 60 series publications, and/or DA PAM 385-61. Personnel protective clothing and equipment will be provided and used to ensure personnel are provided the maximum appropriate protection possible. Only EOD certified personnel will handle munitions and make the initial determination. All operational personnel will have a protective mask immediately available at all times when inside the evacuation zone.
4. COORDINATE AND PLAN ACTIONS. Communication will be maintained at all times between the senior EOD operator at the excavation site, TEU Commander, and the SRF Operations Officer. On-site SRF elements will coordinate among themselves and with local, state, and other federal agencies prior to taking any action which may have an adverse impact or requires their approval.

5. EXPAND MONITORING. Monitoring for suspect target chemical fills will start immediately using the best available methods. Every effort will be made to upgrade on-site monitoring techniques and equipment ASAP. Samples will be taken and transported to off-site resources (i.e., ERDEC laboratories) to verify and/or quantify monitoring data. Redundancy of resources and assessment capabilities will be established whenever practical.

6. PROVIDE MEDICAL SUPPORT. Adequate medical support will be on-site to initially evaluate, provide emergency treatment, and evacuate personnel as needed. The on-site medical officer will coordinate with local medical authorities to establish all off-site support that he deems necessary to ensure optimum care for medical emergencies and routine medical care.

7. CONTINUOUS IMPROVEMENT. Operational procedures, monitoring procedures and equipment, protective clothing, safety assessments, environmental evaluations, and medical support will be continually reviewed, scrutinized, and updated as new equipment, facts, monitoring data, or weather conditions become available. Cost will not be the determining factor in any safety related decisions.

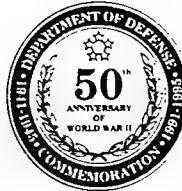
8. The proponent for this policy is the SRF Safety Staff.



GEORGE E. FRIEL
Brigadier General, U.S. Army
On-Site Coordinator



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

27 Jan 93

MEMORANDUM FOR Commander, U.S. Army Materiel Command,
ATTN: AMCPE-P (MR. BARGET), 5001 Eisenhower
Avenue, Alexandria, VA 22333-0001

SUBJECT: Request for Approval of Actual Expense Authorization

1. Request approval for a maximum permissible increase in the TDY cap for military and civilian persons attached to the Service Response Force which responded to Spring Valley, Washington, D.C., as part of Operation Safe Removal.
2. On 5 Jan 93 a civilian developer digging a utility trench for new construction in the Spring Valley area of Washington, D.C., unearthed World War I era chemical and high explosive munitions. MDW and AMC emergency response personnel deployed to the civilian site immediately. On 7 Jan 93, HQDA appointed me the Service Response Force Commander and Federal On Scene Coordinator. Service response forces, primarily from AMC major subordinate commands, began deploying to the scene on that day, and will remain until the mission is completed.
3. Operational considerations require the emergency response forces to be housed in the closest hotels to the site. Individual expenses will exceed the normal TDY cap for the Washington, D.C. metropolitan area. An increase in the TDY cap is necessary to ensure soldiers and civilians responding to this emergency will not incur unreimbursed expenses.
4. Enclosed is a list of all military and civilian personnel affected by this request.

Encl

GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander



27 JAN 1983

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20315-1110REPLY TO
ATTENTION OF

Jan 27, 1983

27 JAN 1983

*Rudy*MEMORANDUM FOR THE SPECIAL ASSISTANT TO THE SECRETARY
AND DEPUTY SECRETARY OF DEFENSE

SUBJECT: Spring Valley/American University Recovery

As you know, Spring Valley is the location in the District of Columbia where buried munitions have been found. This is to alert you that a new report will be released at the citizen's meeting this evening at 6:00 o'clock which may have considerable media concern. The report contains four aerial photographs showing the location of about 20 homes over old trenches and pits used during World War I. This July 1986 report was prepared by the Environmental Protection Agency and used by the Army in finalizing its October 1986 report.

The 20 homeowners are being contacted by Army personnel and the situation is being explained to them. The homes have been in place for several years and there is no danger unless there is excavation. All of the homes have basements.

We have alerted the Mayor and Delegate Norton of the report. The press will be fully briefed on what the photographs show. The report was not available to Army until January 22, due to the high cost and difficulty of reproducing aerial photographs and overlays to accurate scale.

Cooperation with the city is going well and Phase I should be completed by close of business on Friday, January 29th with all of found chemical munitions being moved to Pine Bluff Arsenal and the other munitions being taken to Fort A.P. Hill, Virginia, for destruction.

We will keep you updated on this situation.

Mike

Michael W. Owen
Acting Assistant Secretary of the Army
(Installations, Logistics & Environment)

IMMEDIATE

1772

DATE: 029
TIME: 1310
29 January 93 (1772)Y
1 Cy Reading File
ACTION: SCBRD-ODC
INFO: SCBRD-ODR-C
SCBRD-TD
AMSCB-CM

OTTUZOZW RULNCAR5852 0290034-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR8221 REROUTE OF RUEADWD5852 028225@AMSCB-CG
RUEANEW T DIR ERDEC AFG MD
RUEANEW T CDR TEU AG MD
RUEANEW T CDR USACMDA AFG MD
RUEANEW T CDR CBDA AFG MD
O 282000Z JAN 93
FM CDR SERVICE RESPONSE FORCE WASH DC
TO RULNEAA/DIR ERDEC AFG MD//SCBRD-TD/SCBRD-ODC/SCBRD-ODR-C// ✓
RUEPNIB/CDRAMCOM ROCK ISLAND IL//AMSMC-CO/AMSMC-SR/AMSMC-TMA//
RUCDNPB/CDRPBA PINE BLUFF ARSENAL AR //SMCPB-CO/SMCPB-PAC//
RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//
RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//CDR//
RUWTNFA/CDR 546 EODCC FT SAM HOUSTON TX//TMO//
RHCGAMO/CDR 547 EODCC FT GILLEM GA//TMO//
RUEDHNA/CDR 18TH ORD DET FT BRAGG NC//TMO//
RUCDNPB/CDR 52ND ORD DET PINE BLUFF AR//TMO//
RHDJAAA/89AW ANDREWS AFB MD //CC/DO/L&//
RUEBBMA/23 WING POPE AFB NC//CC/DO/LG//
RUEBBMA/624 ALSG POPE AFB NC//XPL//
RUEOAGA/CDR HQ GARRISON FT LEE VA//ATZM-CG/ATZM-EOC//
RUCDGDA/CDR MICOM RSA AL//AMSMI-RP-CO/AMSI-RA-EH-MF//
RUCLBHA/14FTW COLUMBUS AFB MS //CC/DO/LG/CX/CE//
RUCLALA/CDR USATO FT JACKSON SC//ATZJ-CG/ATZJ-PTM-P//
RUCLBWA/CDR CML-MP CTR FT MCCLELLAN AL//ATZN-CG/ATZN-PTB-B//
RULNEAA/CDR TEU AG MD//SCBTE-CO/SCBTE-OP/SCBTE-SS//

PAGE 02 RUEADWD5852 UNCLAS
INFO RUEADWD/HCPA WASH DC//DAMO-SWS/DAMO-SWC
DAMO-SMA-ECD/DAMO-SF/
DAMO-ODL/SEPS-PSP/SAIC-TI/SAIL-CD/
DAPE-HRE/DALO-TSP/SAILE-EDSH//
RUM3NEA/CDRUSANCA FT BELVOIR VA //MCNA-BU/MCNA-CM//
RUM3DPA/CDR 242 ALEXANDRIA VA//AMCCE/AMCSF-C//
RHGERSB/CDR FORSCOM FT MCPHERSON GA//FCJG-OT/FCJG-TN/FCJG-OV/
FCJG-CAT//
RULNEAA/CDR USACMDA AFG MD//SFIL-NSF/SFIL-CMZ/SFIL-NSI//
RULNEAA/CDR CBDA AFG MD//AMSCB-CM// ✓

IMMEDIATE

RT

AS

ATTACHMENT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT.

CBDA #93-04

A. MSG. CDR SERVICE RESPONSE FORCE. WASH DC, 230200Z JAN 93, SUBJ: NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT.
1. IN ACCORDANCE WITH PUBLIC LAWS 91-121/91-441, SRF IS DIRECTING THE U.S. ARMY TECHNICAL ESCORT UNIT TO CONDUCT AN EMERGENCY SHIPMENT OF HAZARDOUS WASTE SUSPECTED TO CONTAIN PHOSGENE (CG) AND TITANIUM TETRACHLORIDE (FM) FROM SPRING VALLEY, WASHINGTON DC TO PINE BLUFF

PAGE 03 RUEADWD5852 UNCLAS

ARSENAL, AR.

2. CBDA CONTROL NUMBER: CBDA 93-04.

3. PER CONDITIONS OF SHIPMENT IMPOSED BY THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, ADDRESSEES AT ANDREWS AFB, MD; FT LEE, VA; POPE AFB, NC; FT JACKSON, SC; FT MCCLELLAN, AL; REDSTONE ARSENAL, AL; COLUMBUS AFB, MS; AND PINE BLUFF ARSENAL, AR ARE AGAIN REQUIRED TO HAVE RESPONSE FORCES ON STANDBY AS ORIGINALLY REQUESTED IN REF A. TELEPHONIC COORDINATION OF SUPPORT WILL BE ACCOMPLISHED BY SRF EDC PRIOR TO SHIPMENT. AS PLANNED THIS SHIPMENT WILL HAVE AIR MOVEMENT ON SATURDAY, 30 JAN 93. ADDRESSEES ANTICIPATING ADDITIONAL INCREMENTAL COSTS ASSOCIATED WITH THIS SUPPORT MAY CONTACT THE BELOW NAMED POCS FOR INSTRUCTIONS ON FILING CLAIMS FOR REIMBURSEMENT.

4. FLIGHT PATH IS AS FOLLOWS:

A. 1ST LEG, ANDREWS AFB, MD TO POPE AFB, NC.

B. 2ND LEG, POPE AFB, NC TO REDSTONE AAF, HUNTSVILLE, AL.

C. 3RD LEG, REDSTONE AAF TO PINE BLUFF ARSENAL, AR VIA GRIDER FIELD PINE BLUFF, AR.

5. NOTE: THE SCHEDULE OF EVENTS IS AN ESTIMATE. ACTUAL TIMES WILL BE PROVIDED BOTH BY MESSAGE AND TELEPHONICALLY. SHOULD DELAYS OCCUR, THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS WILL NOT CHANGE. ONLY

PAGE 04 RUEADWD5852 UNCLAS

THE TIMES AND DATES.

6. TRANSPORTATION RELEASE NUMBER: NONE.

IMMEDIATE

7. SHIPPING ORDER NUMBER: NONE.
8. NAME OF CARRIER AND EXACT ROUTING:
 - A. UH-1 TAIL NUMBER: 287
 - DEP SPRING VALLEY, WASH DC O/A 0930 EST, 29 JAN 93.
 - ARR ANDREWS AFB, MD O/A 0950 EST, 29 JAN 93.
 - DEP ANDREWS AFB, MD O/A 1030 EST, 29 JAN 93.
 - ARR SPRING VALLEY WASH, DC O/A 1050 EST, 29 JAN 93.
 - DEP SPRING VALLEY, WASH DC O/A 1130, 29 JAN 93.
 - ARR ANDREWS AFB, MD O/A 1150, 29 JAN 93.
 - B. C23 TAIL NUMBER: 40464.
 - DEP ANDREWS AFB, MD O/A 1230, 29 JAN 93
 - ARR POPE AFB, NC (REFUEL) O/A 1400 EST, 29 JAN 93.
 - DEP POPE AFB, NC O/A 1500 EST, 29 JAN 93.
 - ARR REDSTONE AAF, AL (REFUEL, RON) O/A 11630 CST, 29 JAN 93.
 - DEP REDSTONE AAF, AL O/A 0830 CST, 30 JAN 93.
 - ARR GRIDER FIELD, PINE BLUFF, AR O/A 1000 CST, 30 JAN 93.
 - C. CH-47 TAIL NUMBER: TBD.
 - DEP GRIDER FIELD, PINE BLUFF, AR O/A 1030 CST, 30 JAN 93.

PAGE 05 RUEADWDEBZ UNCLAS
ARR PINE BLUFF ARSENAL, AR O/A 1050 CST, 30 JAN 93.

9. CAR OR OTHER VEHICLE: NA.

10. BILL OF LADING NUMBER: NA.

11. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT IS AUTHORIZED BY CDR. OPERATION SAFE REMOVAL UP AR 50-6, PARA 5-C(2). AND PUBLIC LAWS REFERENCED IN PARA 1, THIS MESSAGE.

12. BRIEF DESCRIPTION OF POTENTIAL CONTENTS AND METHOD OF PACKAGING:

A. BRIEF DESCRIPTION OF POTENTIAL ITEMS:

(1) 4.7 INCH SHELL, LIQUID FILLED, SUSPECT CG (4.27 LBS); SHELL IS BURSTERED AND CONTAINS 100 GMS OF EXPLOSIVE.

(2) 75 MM SHELL, LIQUID FILLED, SUSPECT CG (1.32 LBS); SHELL IS BURSTERED AND CONTAINS 25.45 GMS OF EXPLOSIVE.

(3) SMALL LIVENS PROJECTILE, LIQUID FILLED, SUSPECT FM (14 LBS); PROJECTILE IS BURSTERED AND CONTAINS 45 GMS OF EXPLOSIVE.

(4) LARGE LIVENS PROJECTILE, LIQUID FILLED, SUSPECT CG (28.7 LBS); PROJECTILE IS BURSTERED AND CONTAINS 95 GMS OF EXPLOSIVE.

B. PROPER SHIPPING NAME: AMMUNITION TOXIC WITH BURSTER, WASTE, UN 0020.

IMMEDIATE

IMMEDIATE

C. PACKAGING: ITEM IS PLACED INTO A 4-6 MIL PLASTIC BAG WHICH IS CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE

PAGE 06 RUEADWD5852 UNCLAS
SIZED SINGLE ROUND CONTAINER WITH VOID FILLED WITH VERMICULITE. THE CONTAINER IS SEALED BY FLANGE AND LID, TWO CONCENTRIC O-RINGS AND 6 BOLTS. THE SINGLE ROUND CONTAINER IS PUT INTO A DOT 19B WOODEN BOX. SOME CONTAINERS MAY CONTAIN MORE THAN ONE ITEM.

D. CONFIGURATION:
EXACT QUANTITY AND CONFIGURATION WILL BE PROVIDED BY SEPARATE MESSAGE ON DAY OF SHIPMENT.

13. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC: O/A 0900 EST, 29 JAN 93.

14. DATE AND TIME OF ARRIVAL AT PINE BLUFF ARSENAL, AR O/A 1050 CST, 30 JAN 93.

15. NAME, GRADE AND SSN OF TECHNICAL ESCORTS:
NAMES WILL BE PROVIDED BY SEPARATE MESSAGE ON DAY OF SHIPMENT.
16. THE POC AND STORAGE CUSTODIAN AT PINE BLUFF ARSENAL IS: MR. DAVID HUDMAN, MATERIEL MANAGEMENT, SMCFS-MM, DSN 96c-3622. COMMERCIAL (501) 540-3622.

17. POCS FOR THIS ACTION IS MRS BETTY PETERSON OR MAG LEN MOTZ, OPERATION SAFE REMOVAL, (202) 262-0634/0642 OR 1-800-331-1232 EXT. 2533.

BT

#5852

NNNN

IMMEDIATE

CORRECTED COPY

IMMEDIATE

1817

DATE: 029
TIME: 1423
29 January 93(1817)Y
1 Cy Reading File
ACTION: SCBRD-CDC
INFO: SCBRD-ODR-C
SCBRD-TD
AMSCB-CM
AMSCB-CG

OTTUZELX RUEADWD5852 0282256-UUUU--RUEANEW.

ZNR UUUUU ZEL

O 282000Z JAN 93

FM CDR SERVICE RESPONSE FORCE WASH DC
TO RUEANEW/DIR ERDEC APG MD//SCBRD-TD/SCBRD-ODC/SCBRD-ODR-C//

RUEPNIB/CDRAMCCOM ROCK ISLAND IL//AMSMC-CO/AMSMC-SR/AMSMC-TMA//

RUCDNPB/CDRPBA PINE BLUFF ARSENAL AR //SMCPB-CO/SMCPB-PAC//

RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//

RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//CDR//

RUWTNFA/CDR 546 EODCC FT SAM HOUSTON TX//TMO//

RHCGAMO/CDR 547 EODCC FT GILLEM GA//TMO//

RUEOHNA/CDR 18TH ORD DET FT BRAGG NC//TMO//

RUCDNPB/CDR 52ND ORD DET PINE BLUFF AR//TMO//

RHDJAAA/89AW ANDREWS AFB MD //CC/DO/L&//

RUEBBMA/23 WING POPE AFB NC//CC/DO/LG//

RUEBBMA/624 ALSG POPE AFB NC//XPL//

RUEOAGA/CDR HQ GARRISON FT LEE VA//ATZM-CG/ATZM-EOC//

RUCDGDA/CDR MICOM RSA AL//AMSMI-RA-CO/AMSI-RA-EH-MP//

RUCLBHA/14FTW COLUMBUS AFB MS //CC/DO/LG/CX/CE//

RUCLALA/CDR USATC FT JACKSON SC//ATZJ-CG/ATZJ-PTM-P//

RUCLBWA/CDR CML-MP CTR FT MCCLELLAN AL//ATZN-CG/ATZN-PTS-B//

RULNAPG/CDR TEU AG MD//SCBTE-CO/SCBTE-OP/SCBTE-BS//

PAGE 02 RUEADWD5852 UNCLAS

INFO RUEADWD/HQDA WASH DC//DAMO-SWS/DAMO-SWC

DAMO-SMA-ECD/DAMO-SF/

DAMO-ODL/SGPS-PSP/SAIC-TI/SAIL-CD/

DAPE-HRE/DALO-TSP/SAILE-EDSH//

RUKGNBA/CDR USANCA FT BELVOIR VA //MONA-SU/MONA-CM//

RUKLDAR/CDR AMC ALEXANDRIA VA//AMCCB/AMCSF-C//

RHCGSRB/CDR FORSCOM FT MCPHERSON GA//FCJ3-ST/FCJ3-TN/FCJ3-OV//

FCJ3-CAT//

RULNAPG/CDR USACMDA APG MD//SFIL-NSF/SFIL-CMZ/SFIL-NSZ//

RULNAPG/CDR CBDA APG MD//AMSCB-CM//

BT

UNCLAS

SUBJECT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT,
CBDA #93-04

IMMEDIATE

266

PAGE: 1

IMMEDIATE

A. MSG; CDR SERVICE RESPONSE FORCE, WASH DC, 230200Z JAN 93, SUBJ: NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT.
 1. IN ACCORDANCE WITH PUBLIC LAWS 91-121/91-441, SRF IS DIRECTING THE U.S. ARMY TECHNICAL ESCORT UNIT TO CONDUCT AN EMERGENCY SHIPMENT OF HAZARDOUS WASTE SUSPECTED TO CONTAIN PHOSGENE (CG) AND TITANIUM TETRACHLORIDE (FM) FROM SPRING VALLEY, WASHINGTON DC TO PINE BLUFF

PAGE 03 RUEADWD5852 UNCLAS

ARSENAL, AR.

2. CBDA CONTROL NUMBER: CBDA 93-04.

3. PER CONDITIONS OF SHIPMENT IMPOSED BY THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, ADDRESSEES AT ANDREWS AFB, MD; FT LEE, VA; POPE AFB, NC; FT JACKSON, SC; FT MCCLELLAN, AL; REDSTONE ARSENAL, AL; COLUMBUS AFB, MS; AND PINE BLUFF ARSENAL, AR ARE AGAIN REQUIRED TO HAVE RESPONSE FORCES ON STANDBY AS ORIGINALLY REQUESTED IN REF A. TELEPHONIC COORDINATION OF SUPPORT WILL BE ACCOMPLISHED BY SRF EOC PRIOR TO SHIPMENT. AS PLANNED THIS SHIPMENT WILL HAVE AIR MOVEMENT ON SATURDAY, 30 JAN 93. ADDRESSEES ANTICIPATING ADDITIONAL INCREMENTAL COSTS ASSOCIATED WITH THIS SUPPORT MAY CONTACT THE BELOW NAMED FOCS FOR INSTRUCTIONS ON FILING CLAIMS FOR REIMBURSEMENT.

4. FLIGHT PATH IS AS FOLLOWS:

A. 1ST LEG, ANDREWS AFB, MD TO POPE AFB, NC.

B. 2ND LEG, POPE AFB, NC TO REDSTONE AAF, HUNTSVILLE, AL.

C. 3RD LEG, REDSTONE AAF TO PINE BLUFF ARSENAL, AR VIA GRIDER FIELD PINE BLUFF, AR.

5. NOTE: THE SCHEDULE OF EVENTS IS AN ESTIMATE. ACTUAL TIMES WILL BE PROVIDED BOTH BY MESSAGE AND TELEPHONICALLY. SHOULD DELAYS OCCUR, THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS WILL NOT CHANGE. ONLY

PAGE 04 RUEADWD5852 UNCLAS

THE TIMES AND DATES.

6. TRANSPORTATION RELEASE NUMBER: NONE.

7. SHIPPING ORDER NUMBER: NONE.

8. NAME OF CARRIER AND EXACT ROUTING:

A. UH-1 TAIL NUMBER: 297

DEP SPRING VALLEY, WASH DC O/A 0930 EST. 29 JAN 93.

IMMEDIATE

IMMEDIATE

ARR ANDREWS AFB, MD O/A 0950 EST, 29 JAN 93.
 DEP ANDREWS AFB, MD O/A 1030 EST, 29 JAN 93.
 ARR SPRING VALLEY WASH, DC O/A 1050 EST, 29 JAN 93.
 DEP SPRING VALLEY, WASH DC O/A 1130, 29 JAN 93.
 ARR ANDREWS AFB, MD O/A 1150, 29 JAN 93.
 B. C23 TAIL NUMBER: 40464.
 DEP ANDREWS AFB, MD O/A 1230, 29 JAN 93
 ARR POPE AFB, NC (REFUEL) O/A 1400 EST, 29 JAN 93.
 DEP POPE AFB, NC O/A 1500 EST, 29 JAN 93.
 ARR REDSTONE AAF, AL (REFUEL, RON) O/A 1100 CST, 29 JAN 93.
 DEP REDSTONE AAF, AL O/A 0830 CST, 30 JAN 93.
 ARR GRIDER FIELD, PINE BLUFF, AR O/A 1000 CST, 30 JAN 93.
 C. CH-47 TAIL NUMBER: TBD.
 DEP GRIDER FIELD, PINE BLUFF, AR O/A 1030 CST, 30 JAN 93.

PAGE 05 RUEADWD5852 UNCLAS

ARR PINE BLUFF ARSENAL, AR O/A 1050 CST, 30 JAN 93.

9. CAR OR OTHER VEHICLE: NA.

10. BILL OF LADING NUMBER: NA.

11. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT IS AUTHORIZED BY CDR, OPERATION SAFE REMOVAL UP AF EO-6. PARA 5-C(2). AND PUBLIC LAWS REFERENCED IN FARA 1. THIS MESSAGE.

12. BRIEF DESCRIPTION OF POTENTIAL CONTENTS AND METHOD OF PACKAGING:

A. BRIEF DESCRIPTION OF POTENTIAL ITEMS:

(1) 4.7 INCH SHELL, LIQUID FILLED, SUSPECT CG (4.27 LBS); SHELL IS BURSTERED AND CONTAINS 100 GMS OF EXPLOSIVE.

(2) 75 MM SHELL, LIQUID FILLED, SUSPECT CG (1.32 LBS); SHELL IS BURSTERED AND CONTAINS 35.45 GMS OF EXPLOSIVE.

(3) SMALL LIVENS PROJECTILE, LIQUID FILLED. SUSPECT FM (14 LBS); PROJECTILE IS BURSTERED AND CONTAINS 45 GMS OF EXPLOSIVE.

(4) LARGE LIVENS PROJECTILE, LIQUID FILLED, SUSPECT CG (28.7 LBS); PROJECTILE IS BURSTERED AND CONTAINS 95 GMS OF EXPLOSIVE.

B. PROPER SHIPPING NAME: AMMUNITION TOXIC WITH BURSTER, WASTE, UN 0020.

C. PACKAGING: ITEM IS PLACED INTO A 4-mil PLASTIC BAG WHICH IS CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE

IMMEDIATE

IMMEDIATE

PAGE 06 RUEADWD5852 UNCLAS
SIZED SINGLE ROUND CONTAINER WITH VOID FILLED WITH VERMICULITE. THE
CONTAINER IS SEALED BY FLANGE AND LID, TWO CONCENTRIC O-RINGS AND 6
BOLTS. THE SINGLE ROUND CONTAINER IS PUT INTO A DOT 198 WOODEN BOX.
SOME CONTAINERS MAY CONTAIN MORE THAN ONE ITEM.

D. CONFIGURATION:

EXACT QUANTITY AND CONFIGURATION WILL BE PROVIDED BY SEPARATE MESSAGE
ON DAY OF SHIPMENT.

13. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC: O/A 0930
EST, 29 JAN 93.

14. DATE AND TIME OF ARRIVAL AT FINE BLUFF ARSENAL, AR O/A 1050 CST.
30 JAN 93.

15. NAME, GRADE AND SSN OF TECHNICAL ESCORTS:

NAMES WILL BE PROVIDED BY SEPARATE MESSAGE ON DAY OF SHIPMENT.

16. THE POC AND STORAGE CUSTODIAN AT FINE BLUFF ARSENAL IS: MR.
DAVID HUDDMAN, MATERIEL MANAGEMENT, SMCPS-MM, DSN 966-3622, COMMERCIAL
(501) 540-3622.

17. POCS FOR THIS ACTION IS MRS BETTY PETERSON OR MAJ LEN MOTZ,
OPERATION SAFE REMOVAL, (202) 282-0634/0642 OR 1-800-331-1238 EXT.
2535.

BT

#5852

NNNN

IMMEDIATE

IMMEDIATE

DATE: 029
TIME: 1320
29 January 93 (1775)Y
1 Cy Reading File
ACTION: SCBRD-ODC
INFO: SCBRD-ODR-C
SCBRD-TD
AMSCB-CM
AMSCB-CG

OTTUZOVW RULNCAR6247 0290308-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR8234 REROUTE OF RUEADWD6247 0290218
RUEANEW T DIR ERDEC APG MD
RUEANEW T CDR CBDA APG MD
RUEANEW T CDR AASF WEIDE AAF APG-EA MD
RUEANEW T CDR USATEU AG MD
RUEANEW T CDR USACMDA APG MD
O 282250Z JAN 93
FM CDR SERVICE RESPONSE FORCE WASH DC
TO RULNEAA/DIR ERDEC APG MD//SCBRD-TD/SCBFD-ODC/SCBRD-ODR-C//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CG/AMSMC-SR/AMSMC-TMA
RULNEAA/CDR CBDA APG MD//AMSCB-CM//
RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//
RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//CDR//
RULNEAA/CDR AASF WEIDE AAF APG-EA MD//CDR//
RULNAPG/CDR APGSA APG MD//STEAF-FF-F/STEAP-FF-B//
RULNEAA/CDR USATEU AG MD//SCBTE-CO/SCBTE-OP/SCBTE-BS//
INFO RUEADWD/HQDA WASH DC//DAMO-SWS/DAMO-SWC/
DAMO-SMA-ECD/DAMO-SF/
/DAMO-ODL/SGPS-FSP/SAIC-TI/SAIL-CD/DAFE-HRE
/DALO/TSP
SAILE-EOSH//
RUKGNBA/CDRUSANCA FT BELVOIR VA //MONA-EL/MONA-CM//
RUKLDAR/CDR AMC ALEXANDRIA VA//AMCCB/AMCEF-C//
RHCGSRB/CDR FORSCOM FT MCPHERSON GA//FCJZ-ST/FCJZ-TN/FCJZ-DV//
FCJZ-CAT//
RULNEAA/CDR USACMDA APG MD//SFIL-NSP/SFIL-CM//SFIL-NSZ//

PAGE 02 RUEADWD6247 UNCLAS

BT

UNCLAS

SUBJECT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT.

CBDA #93-05

1. IN ACCORDANCE WITH 40 CFR 261.1(c), AND STATE OF MD REGULATION COMAR 26.13.02.04D, SRF IS DIRECTING THE U.S. ARMY TECHNICAL ESCORT UNIT TO CONDUCT AN EMERGENCY SHIPMENT OF ENVIRONMENTAL SAMPLES SUSPECTED TO CONTAIN PHOSGENE (CG) FROM SPRING VALLEY, WASHINGTON DC TO EDGEWOOD AREA ABERDEEN PROVING GROUND, MD.

IMMEDIATE

IMMEDIATE

PAGE: 2

2. CBDA CONTROL NUMBER: CBDA #93-05.
3. NOTE: THE SCHEDULE OF EVENTS IS AN ESTIMATE. DUE TO THE TIME CONSTRAINTS ASSOCIATED WITH THIS EMERGENCY MISSION, INFORMATION CONTAINED HEREIN WILL BE UPDATED TELEPHONICALLY TO KEY ADDRESSEES. SHOULD DELAYS OCCUR, THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS WILL NOT CHANGE, ONLY THE TIMES AND DATES.
4. TRANSPORTATION RELEASE NUMBER: NA.
5. SHIPPING ORDER NUMBER: NONE.
6. NAME OF CARRIER AND EXACT ROUTING: UH-1 TAIL NUMBER TBD, DEF SPRING VALLEY, WASH DC O/A 1330 EST, 29 JAN 93, FLY DIRECT.AVOIDING POPULATED AREAS. TO ARRIVE WEIDE AAF, APG (EA), MD O/A 291430 JAN

PAGE 03 RUEADWD6247 UNCLAS

93 (EST).

7. CAR OR OTHER VEHICLE: NA.
8. BILL OF LADING NUMBER: NA.
9. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT IS AUTHORIZED BY CDR, OPERATION SAFE REMOVAL UP REGULATIONS REFERENCED IN PARA 1, THIS MESSAGE'
10. BRIEF DESCRIPTION OF POTENTIAL CONTENTS AND METHOD OF PACKAGING:
 - A. DESCRIPTION:
 - (1) 75 MM SHELL. LIQUID FILLED. SUSPECT CG: SHELL IS UNBURSTERED AND UNFUZED.
 - (2) LIVENS PROJECTILE. LIQUID FILLED. SUSPECT CG: PROJECTILE IS UNBURSTERED AND UNFUZED.
 - B. PROPER SHIPPING NAME: AMMUNITION, TOXIC.
 - C. PACKAGING: ITEM IS PLACED INTO A 4-6 MIL PLASTIC BAG WHICH IS CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE SIZED SINGLE ROUND CONTAINED WITH VOID FILLED WITH VERMICULITE. THE CONTAINER IS SEALED BY FLANGE AND LID, TWO CONCENTRIC O-RINGS AND 6 BOLTS. THE SINGLE ROUND CONTAINER IS PUT INTO A DOT 19B WOODEN BOX. SOME CONTAINERS MAY CONTAIN MORE THAN ONE ITEM.
 - D. CONFIGURATION: EXACT QUANTITY AND CONFIGURATION WILL BE PROVIDED

PAGE 04 RUEADWD6247 UNCLAS
BY SEPARATE MESSAGE ON DAY OF SHIPMENT.

IMMEDIATE

271

PAGE: 2

PAGE: 3

IMMEDIATE

11. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC: O/A 1300 EST, 29 JAN 93.

12. DATE AND TIME OF ARRIVAL AT WEIDE FIELD, EDGEWOOD AREA, ABERDEEN PROVING GROUND, MD: O/A 1430 EST, 29 JAN 93.

13. OSR POCS FOR THIS ACTION ARE MRS BETTY PETERSON OR MAJ LEN MOTZ. OPERATION SAFE REMOVAL, (202) 282-0634/0642 OR 1-800-331-1238 EXT. 2535.

BT

#6247

NNNN

PAGE: 3

IMMEDIATE

CORRECTED COPY

IMMEDIATE

1816

DATE: 029

TIME: 1424

29 January 93 (1816) Y

1 Cy Reading File

ACTION: SCBRD-ODC

INFO: SCBRD-ODR-C

SCBRD-TD

AMSCB-CM

AMSCB-CG

OTTUZELX RUEADWD6247 0290218-UUUU--RUEANEW.

ZNR UUUUU ZEL

O 282250Z JAN 93

FM CDR SERVICE RESPONSE FORCE WASH DC
TO RUEANEW/DIR ERDEC APG MD//SCBRD-TD/SCBRD-ODC/SCBRD-ODR-C// ✓

RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CO/AMSMC-SR/AMSMC-TMA

RULNAPG/CDR CBDA APG MD//AMSCB-CM// ✓

RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//

RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//CDR//

RULNAPG/CDR AASF WEIDE AAF APG-EA MD//CDR//

RULNAPG/CDR APGSA APG MD//STEAP-PF-F/STEAP-PF-S//

RULNAPG/CDR USATEU AG MD//SCBTE-CO/SCBTE-OP/SCBTE-SS//

INFO RUEADWD/HQDA WASH DC//DAMO-SWS/DAMO-SWC//

DAMO-SMA-ECD/DAMO-SF//

/DAMO-ODL/SGPS-PSP/SAIC-TI/SAIL-CD/DAPE-HRE

/DALO/TSP

SAILE-EOSH//

RUKGNBA/CDRUSANCA FT BELVOIR VA //MONA-SU/MONA-CM//

RUKLDAR/CDR AMC ALEXANDRIA VA//AMCCB/AMCSF-C//

RHCGSRB/CDR FORSCOM FT MCPHERSON GA//FCJ3-OT/FCJ3-TN/FCJ3-OV//

FCJ3-CAT//

RULNAPG/CDR USACMDA APG MD//SFIL-NSP/SFIL-CMZ/SFIL-NSZ//

PAGE 02 RUEADWD6247 UNCLAS

BT

UNCLAS

SUBJECT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT,
CBDA #93-05

1. IN ACCORDANCE WITH 40 CFR 261.1(D), AND STATE OF MD REGULATION
COMAR 26.13.02.04D, SRF IS DIRECTING THE U.S. ARMY TECHNICAL ESCORT
UNIT TO CONDUCT AN EMERGENCY SHIPMENT OF ENVIRONMENTAL SAMPLES
SUSPECTED TO CONTAIN PHOSGENE (CG) FROM SPRING VALLEY, WASHINGTON DC
TO EDGEWOOD AREA ABERDEEN PROVING GROUND, MD.

2. CBDA CONTROL NUMBER: CBDA #93-05.

3. NOTE: THE SCHEDULE OF EVENTS IS AN ESTIMATE. DUE TO THE TIME
CONSTRAINTS ASSOCIATED WITH THIS EMERGENCY MISSION, INFORMATION
CONTAINED HEREIN WILL BE UPDATED TELEPHONICALLY TO KEY ADDRESSEES.
SHOULD DELAYS OCCUR, THE OPERATIONAL CONCEPT AND SEQUENCE OF EVENTS

IMMEDIATE

WILL NOT CHANGE, ONLY THE TIMES AND DATES.

4. TRANSPORTATION RELEASE NUMBER: NA.

5. SHIPPING ORDER NUMBER: NONE.

6. NAME OF CARRIER AND EXACT ROUTING: UH-1 TAIL NUMBER TBD, DEF

SPRING VALLEY, WASH DC O/A 1330 EST, 29 JAN 93, FLY DIRECT, AVOIDING
POPULATED AREAS, TO ARRIVE WEIDE AAF, APG (EA), MD O/A 291430 JAN

PAGE 03 RUEADWD6247 UNCLAS

93 (EST).

7. CAR OR OTHER VEHICLE: NA.

8. BILL OF LADING NUMBER: NA.

9. REQUISITION NUMBER AND REF TO MSG AUTH SHIPMENT: SHIPMENT IS
AUTHORIZED BY CDR, OPERATION SAFE REMOVAL UP REGULATIONS REFERENCED
IN PARA 1, THIS MESSAGE

10. BRIEF DESCRIPTION OF POTENTIAL CONTENTS AND METHOD OF PACKAGING:

A. DESCRIPTION:

(1) 75 MM SHELL, LIQUID FILLED, SUSPECT CG; SHELL IS UNBURSTERED
AND UNFUZED.

(2) LIVENS PROJECTILE, LIQUID FILLED, SUSPECT CG; PROJECTILE IS
UNBURSTERED AND UNFUZED.

B. PROPER SHIPPING NAME: AMMUNITION, TOXIC.

C. PACKAGING: ITEM IS PLACED INTO A 4-6 MIL PLASTIC BAG WHICH IS
CLOSED WITH TAPE. THE BAGGED ROUND IS PLACED INSIDE AN APPROPRIATE
SIZED SINGLE ROUND CONTAINED WITH VOID FILLED WITH VERMICULITE. THE
CONTAINER IS SEALED BY FLANGE AND LID, TWO CONCENTRIC O-RINGS AND 6
BOLTS. THE SINGLE ROUND CONTAINER IS PUT INTO A OCT 198 WOODEN BOX.

SOME CONTAINERS MAY CONTAIN MORE THAN ONE ITEM.

D. CONFIGURATION: EXACT QUANTITY AND CONFIGURATION WILL BE PROVIDED

PAGE 04 RUEADWD6247 UNCLAS

BY SEPARATE MESSAGE ON DAY OF SHIPMENT.

11. DATE AND TIME OF DEPARTURE FROM SPRING VALLEY, WASH DC: O/A 1330
EST, 29 JAN 93.

12. DATE AND TIME OF ARRIVAL AT WEIDE FIELD, EDGEWOOD AREA, ABERDEEN
PROVING GROUND, MD: O/A 1430 EST, 29 JAN 93.

13. OSR POCS FOR THIS ACTION ARE MRS BETTY PETERSON OR MAJ LEN MOTZ,

IMMEDIATE

IMMEDIATE

PAGE: 3

OPERATION SAFE REMOVAL, (202) 282-0634/0642 OR 1-800-331-1238 EXT.
2535.
BT
~~#6247~~
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IMMEDIATE

PAGE: 3



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



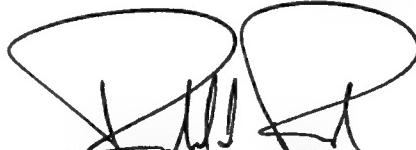
REPLY TO
ATTENTION OF **COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE**

28 January 1993

MEMORANDUM FOR SRF Spring Valley Forces

SUBJECT: Mission Termination/Site Closure

1. As we approach the final phases of Operation Safe Removal, support requirements will decrease and units/organizations will be detached back to their home stations. As a part of this process it is imperative that we ensure every effort is made to return this area to the local residents in good condition.
2. During the process of clearing out of the area, it is important that the following list of tasks, as a minimum, are completed:
 - a. Pick up trash or debris.
 - b. Remove stakes, poles, signs, or barricades.
 - c. Fill in any holes dug in support of operations.
 - d. Disconnect lines and hoses.
 - e. Upload equipment.
 - f. Perform preventive maintenance checks and services.
 - g. Identify and properly treat any fuel or oil spills.
3. Our goal is to have the site restored to it's original condition or better.
4. All tasks must be accomplished and coordinated with the Deputy SRF Commander prior to leaving. POC is 1LT Martin, (202) 282-0634.



RICHARD D. READ
COL, CM
Deputy Service Response
Force Commander

STREET N

WARREN PLACE

RED CROSS

976 975 974 973 972 971
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943 942 941 940 944 945

52nd STREET 964 965
928 927 **RAMP** SECTION 926

SOUTH SECTION 926

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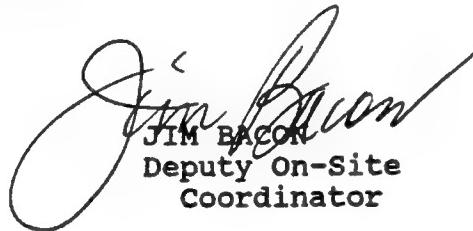
28 Jan 93

MEMORANDUM FOR SRF/OSC Staff

SUBJECT: Phase I/Phase II Transition Planning Meeting

1. A meeting between key SRF/OSC staff and the Corps of Engineers (COE) Project Team is scheduled for 1000, 29 Jan 93 in the Conference Room. Focus of the meeting will be the transition from Phase I to Phase II (Remediation/Recovery).
2. The attached memorandum from CPT Gerald Torrence, CENAB-PD-P, lists the data and documentation requested by the Corps of Engineers team.
3. The point of contact is the undersigned, telephone number 1-800-331-1238 extension 2545.

Encl



JIM BACON
Deputy On-Site
Coordinator

CENAB-PD-P

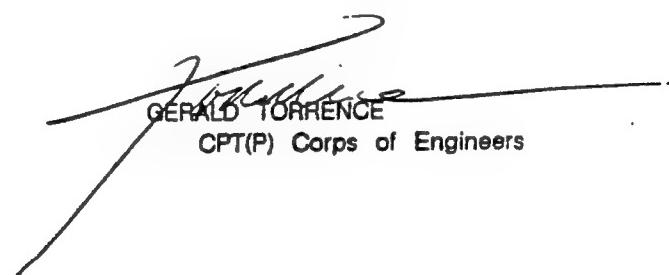
26 January 1993

MEMORANDUM FOR RECORD

SUBJECT: Request for Document Transfer, Phase I to Phase II

1. Reference Verification Plan for Termination of the Emergency Response Phase
2. Enclosed is a list of documents, records and plans which the Corps of Engineers, Baltimore District (CENAB) requests be provided during the phase I to phase II transition.
3. CENAB further request that these documents be made available at the Phase I Phase II Transition Meeting tentatively scheduled to occur on ~~Thursday, 28~~ January 1993.
~~Friday, 29~~
4. Questions regarding this request should be addressed to CPT Gerald Torrence at 410-458-9708/9707.

Enclosure


GERALD TORRENCE
CPT(P) Corps of Engineers

LIST OF DOCUMENTS, PLANS AND DATA REQUIRED FOR PHASE II, OPERATION
SAFE REMOVAL

- * FACT SHEETS ON CHEMICALS AND POTENTIAL HAZARDS
- * SITUATION REPORTS
- * MODELS OF TYPES OF MUNITIONS FOUND
- * INVENTORY OF MUNITIONS AND DISPOSITION
- * CHEMICAL ANALYSIS OF SOIL, WATER, AIR AND MUNITION CONTENTS
- * COMPLETE POC LIST (FEDERAL AGENCIES, CBDA, USACAMDA, LOCAL etc.)
- * LIST OF AREA RESIDENTS BY ADDRESS AND PHONE NUMBERS
- * COPIES OF REFERENCES: 40 CFR, DOD and/or DA REGULATIONS, etc.
- * HISTORICAL DATA
- * COPY OF TOPOGRAPHIC PRODUCTS
- * COPIES OF ALL PRESS RELEASES
- * MILLER COMPANY'S WORK PRIORITY LIST AND POC'S
- * COPY OF BG FRIEL'S PHOTOGRAPH NOTE BOOK
- * SECURITY PLAN AND POC'S
- * ANY MOA'S WITH THE CITY GOVERNMENT

93 0003
FILE READING FILE
ACTION = SCBRD-ODC
INFO = SCBRD-ODR-C
SCBRD-TD,
AMSCB-CM

IMMEDIATE

DATE: 032
TIME: 1313

0003

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ZNR UUUUU ZOV RULNCAR8305 REROUTE OF RUEADWD8466 0292243
RUEANEW T DIR ERDEC APG MD
RUEANEW T CDR TEU AG MD
RUEANEW T CDR USACMDA APG MD
RUEANEW T CDR CBDA APG MD
O 292048Z JAN 93

FM CDR SERVICE RESPONSE FORCE WASH DC
TO RULNEAA/DIR ERDEC APG MD//SCBRD-TD/SCBRD-ODC/SCBRD-ODR-C//
RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMC-CO/AMSMC-SR/AMSMC-TMA
RUCDNPB/CDRPBA PINE BLUFF ARSENAL AR //SMCPB-CO/SMCPB-PAC//
RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//
RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//CDR//
RUWTNFA/CDR 546 EODCC FT SAM HOUSTON TX//TMO//
RHCGGIL/CDR 547 EODCC FT GILLEM GA//TMO//
RUEDHNA/CDR 18TH ORD DET FT BRAGG NC//TMO//
RUCDNPB/CDR 52ND ORD DET PINE BLUFF AR//TMO//
RHDJAAA/89AW ANDREWS AFB MD //CC/DO/LG//
RUEBBMA/23 WING POPE AFB NC//CC/DO/LG//
RUEBBMA/624 ALSG POPE AFB NC//XPL//
RUEOAGA/CDR HQ GARRISON FT LEE VA//ATZM-CG/ATZM-EDC//
RUCDGDA/CDR MICOM RSA AL//AMSMI-RA-CO/AMSI-RA-EH-MP//
RUCLBHA/14FTW COLUMBUS AFB MS //CC/DO/LG/CX/CE//
RUCLALA/CDR USATC FT JACKSON SC//ATZJ-CG/ATZJ-FTM-B//
RUCLBWA/CDR CML-MP CTR FT MCCLELLAN AL//ATZN-CG/ATZN-FTS-B//
RULNEAA/CDR TEU AG MD//SCBTE-CO/SCBTE-OP/SCBTE-SS//

PAGE 02 RUEADWD8466 UNCLAS
INFO RUEADWD/QDA WASH DC//DAMO-SWS/DAMO-SWC
DAMO-SMA-ECD/DAMO-SF//
DAMO-ODL/SGPS-PSP/SAIC-TI/SAIL-CD/DAFE-HRE
DALO-TSP/
SAILE-EOSH//
RUKGNBA/CDRUSANCA FT BELVOIR VA //MONA-SU/MONA-CM//
RUKLDAR/CDR AMC ALEXANDRIA VA//AMCCB/AMCSF-C//
RHCGSRS/CDR FORSCOM FT MCPHERSON GA//FCJ3-OT/FCJ3-TN/FCJ3-OV
FCJ3-CAT//
RULNEAA/CDR USACMDA APG MD//SFIL-NSP/SFIL-CMZ/SFIL-NSZ//

IMMEDIATE

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PAGE: 2

RULNEAA/CDR CBDA AFG MD//AMSCR-CM//

BT

UNCLAS

SUBJECT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT,
CBDA 93-04; SUPPLEMENTAL INFORMATION

A. MSG, CDR SERVICE RESPONSE FORCE, WASH DC, 282000Z JAN 93, SUBJ:
NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT. 93-04

1. THE FOLLOWING SUPPLEMENTAL INFORMATION CONCERNING SHIPMENT CBDA
93-04 NOT AVAILABLE IN REF A IS PROVIDED AS FOLLOWS.

2. AIRCRAFT TAIL NUMBERS:

PAGE 03 RUEADWD8466 UNCLAS

A. SPRING VALLEY TO ANDREWS AFB, UH-1H 287

B. ANDREWS AFB TO GRIDER FIELD, C-23 40464

C. GRIDER FIELD TO PINE BLUFF ARSENAL, CH-47 TBD

3. BRIEF DESCRIPTION OF CONTENTS AND METHOD OF PACKAGING:

A. BRIEF DESCRIPTON:

(1) 75 MM SHELL, LIQUID FILLED, SUSPECT CG (1.32 LBS);
SHELL IS BURSTERD AND CONTAINS 35.45 GRAMS OF EXPLOSIVE.

(2) 75 MM SHELL, SOLID FILLED, SUSPECT FS; SHELL IS BURSTERED
AND CONTAINS 35.45 GRAMS OF EXPLOSIVE.

(3) LIVENS PROJECTILE, LIQUID FILLED, SUSPECT CG (28.7 LBS);
PROJECTILE IS BRUSTERED AND CERTIFIED BY EOD AS OKAY FOR SHIPMENT.

B. PROPER SHIPPING NAMES:

(1) 75 MM (LIQUID), AMMUNITION TOXIC, WITH BURSTER, WASTE, UN
0200, AND 75MM (SOLID). AMMUNITION SMOKE WITH BURSTER, WASTE, UN 001

(2) LIVENS, PROJECTILE WITH BURSTER, WASTE, UN 0167.

C. PACKAGING: AS DESCRIBED IN MSG A.

D. CONFIGURATION:

SRC	TYPE SRC	ITEM	/SRC	WT	CU FT
027	155	75 MM	2	88	3.0
030	X	LIVENS	1	217	5.8

PAGE 04 RUEADWD8466 UNCLAS

029	155	75 MM	1	70	3.0
031	X	LIVENS	1	230	5.8

IMMEDIATE

282

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IMMEDIATE

PAGE: 3

4. NAME, GRADE AND SSN OF TECHNICAL ESCORTS:

- A. CPT SUSAN L. COVELL
- B. WG9 LESTER C. BROWN
- C. WG9 CHARLES T. HOLLOWAY
- D. WG9 ANDREW M. SCHREINER

5. POCS AT DESIGNATED EMERGENCY RESPONSE INSTALLATIONS WILL BE NOTIFIED TELEPHONICALLY BY THIS OPERATIONS CENTER WHEN THE AIRCRAFT WILL BE AIRBORNE IN THEIR AREA OF RESPONSIBILITY AND WHEN THE AIRCRAFT HAS EXITED THEIR AREA OF RESPONSIBILITY. ANY FURTHER QUESTIONS CONCERNING EMERGENCY RESPONSE REQUIREMENTS CAN BE ADDRESSED TO BELOW NAMED POCS.

6. SHOULD THIS FLIGHT BE DELAYED/CANCELLED DUE TO ADVERS WEATHER, TELEPHONIC NOTIFICATION WILL BE MADE TO ADDRESSEES AS REQUIRED.

7. OSR POCS ARE MS BETTY PETERSON OR MAJ LEN MOTZ. 1-800-332-1238, EXT 2535.

BT

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IMMEDIATE

PAGE: 3

T FEB 93 0006 Y
T CY READING FILE -
ACTIONS SCBRD-ODC
INFO: SCBRD-ODR-C
SCBRD-TD
AMSCB-CM

IMMEDIATE

DATE: 032
TIME: 1314

0006

OTTUZOVW RULNCAR8712 0300127-UUUU--RUEANEW.
ZNR UUUUU ZOV RULNCAR8306 REROUTE OF RUEADWD8712 0300051

RUEANEW T DIR ERDEC APG MD

RUEANEW T CDR CBDA APG MD

RUEANEW T CDR AASF WEIDE AAF APG-EA MD

RUEANEW T CDR APGSA APG MD

RUEANEW T CDR USATEU AG MD

RUEANEW T CDR USACMDA APG MD

O 292200Z JAN 93

FM CDR SERVICE RESPONSE FORCE WASH DC

TO RULNEAA/DIR ERDEC APG MD//SCBRD-TD/SCBRD-ODC/SCBRD-ODR-C//✓

RUEPNIB/CDRAMCCOM ROCK ISLAND IL //AMSMU-POL/AMSMU-PRV/

/AMSMC-TMA//

RULNEAA/CDR CBDA APG MD//AMSCB-CM// ✓

RUEBJFA/CDR 549 EODCC FT MEADE MD//TMO//

RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//CDR//

RULNEAA/CDR AASF WEIDE AAF APG-EA MD//CDR//

RULNEAA/CDR APGSA APG MD//STEAF-BH-F/STEAF-FF-6//

RULNEAA/CDR USATEU AG MD//SCBTE-CO/SCBTE-OP/SCBTE-SS//

INFO RUEADWD/HQDA WASH DC//DAMO-SWS/DAMO-SWC

/DAMO-SMA-ECD/DAMO-SF/

/DAMO-ODL/SGPS-PSP/SAIC-TI

/SAIL-CD/DAPE-HRE/DALO-TSF/

/SAILE-EOSH//

RUKGNBA/CDRUSANCA FT BELVOIR VA //MCNA-EL/MCNA-CM//

RUKLDAR/CDR AMC ALEXANDRIA VA //AMOCB/AMCSF-C//

RHCGSRS/CDR FORSCOM FT MCFHERSON GA//FCJS-37/FCJS-TN/FCJE-04//

/FCJS-CAT//

PAGE 02 RUEADWD8712 UNCLAS

RULNEAA/CDR USACMDA APG MD//SFIL-NSP/SFIL-DMZ/SFIL-NSI//

BT

UNCLAS

SUBJECT: NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT.

CEDA 93-05: SUPPLEMENTAL INFORMATION

A. MSG, CDR SERVICE RESPONSE FORCE, WASH DC, 292200Z JAN 93, SL60:

NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT.

1. THE FOLLOWING SUPPLEMENTAL INFORMATION CONCERNING SHIPMENT CEDA

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IMMEDIATE

'93-05 NOT AVAILABLE IN REF A IS PROVIDED AS FOLLOWS:

2. AIRCRAFT TAIL NUMBER : UH-1H 287.

3. CHANGED INFORMATION TO BRIEF DESCRIPTION OF CONTENTS:

(A) DESCRIPTION: ADD:

(3) 4.7 INCH SHELL, SMALL AMOUNT OF LIQUID. SUSPECT OG. SHELL IS UNBURSTED AND UNFUZED.

(D) CONFIGURATION:

SRC	TYPE SRC	ITEM	/SRC	WT	CU FT
018	155	75 MM	:	78	3.0
022	X	LIVENS	:	217	3.8
001	155	75 MM	:	29	3.0
028	155	75 MM	:	78	3.0

PAGE 03 RUEADWD8712 UNCLAS

032 8 4.7" : 100 2.0

4. NAME, GRADE AND SSN OF TECHNICAL ESCORTS:

- A. TIM BLADES, WS18,
- B. NICHOLAS MAGNUM, SFC.
- C. BRIAN MCCOMAS, SSG,
- D. WILLIAM CLINE, SSG.
- E. JAMES MAJOR, WG.

5. FOCS AT OPERATION SAFE REMOVAL ARE MAJ LEN MOTT OR MSG 28777
PETERSON, 1-800-331-1238, EXT 2655.

A. MSG. CDF SERVICE RESPONSE FORCE, WASH DC. 282250Z JAN 92, ELE41
NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT.

1. THE FOLLOWING SUPPLEMENTAL INFORMATION CONCERNING SHIPMENT 0304

93-05 NOT AVAILABLE IN REF A IS PROVIDED AS FOLLOWS:

2. AIRCRAFT TAIL NUMBER : UH-1H 287.

3. CHANGED INFORMATION TO BRIEF DESCRIPTION OF CONTENTS:

(A) DESCRIPTION: ADD:

(3) 4.7 INCH SHELL, SMALL AMOUNT OF LIQUID. SUSPECT OG. SHELL IS UNBURSTED AND UNFUZED.

(D) CONFIGURATION:

SFC	TYPE SRC	ITEM	/SRC	WT	CU FT
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PAGE 04 RUEADWD8712 UNCLAS

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IMMEDIATE

018	155	75 MM	1	78	3.0
022	X	LIVENS	1	217	5.6
001	155	75 MM	2	69	3.0
028	155	75 MM	1	78	3.0
032	8	4.7 "	1	105	2.2

4. NAME, GRADE AND SSN OF TECHNICAL ESCORTS:

- A. TIM BLADES, WS16.
- B. NICHOLAS MAGNUM, SFC.
- C. BRIAN MCCOMAE, SSG.
- D. WILLIAM CLINE, SSG.
- E. JAMES MAJOR, WG.

5. POCS AT OPERATIONS SAFE REMOVAL ARE MAC LEN MOTE OR MS BETTY PETERSON, 1-800-CC1-1236, EXT 2222.

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DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF

January 29, 1993

Office of the Commander

Dear

I have always been committed to the welfare of all personnel in my command, both military and civilian. With this in mind, I realize the deployment of personnel to Spring Valley, Washington, D.C., in support of Operation Safe Removal, may be disruptive to family members and their usual routines. Therefore, I am establishing a chain of concern for the families of all civilian personnel on temporary duty (TDY) to the Spring Valley site. A chain of concern is set up within an organization to provide support to family members of deployed employees. A volunteer point of contact (POC) assists in finding answers to questions and concerns family members may have while the spouse is away.

We hope to wrap up the work at the Spring Valley site very soon. In the meantime, there are people ready and willing to assist you. If you have questions, concerns or need other assistance, please don't hesitate to call. The volunteer POC assisting your directorate is:

Work Phone (410)
Home Phone (410)

If you need to contact your spouse after hours in Washington D.C., the hotel numbers are:

Embassy Suites (202) 362-9300
Holiday Inn (301) 656-1500

Again, if you have any questions or concerns, please get in touch with your volunteer POC right away. We appreciate your support and understanding and want to make this time as easy as possible for you and your family.

Sincerely,

George E. Friel
Brigadier General, U.S. Army
Commanding



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF

COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

30 January 1993

MEMORANDUM FOR RECORD

SUBJECT: Backfill of Pits

1. All laboratory data received to date from all pits dug during Operation Safe Removal have been substantially below significant levels approved by EPA for Phase I.
2. Pits 2,3 and 4 may be backfilled as soon as possible.
3. Pit 1 may be filled as soon as the sewer hookup is completed by the builder, and is inspected by the DC public utility inspectors.

GEORGE E. FRIEL
Brigadier General, U.S. Army
Service Response Force Commander

February 1, 1993

John E. Ely
Director
Office of Compliance and Enforcement
Virginia Department of Waste Management
101 North 14th Street
Richmond, VA 23219

Dear Mr. Ely,

This letter provides information regarding the detonation of 90 rounds at Ft. AP Hill on 20 Jan 93 in accordance with the Temporary Emergency Permit to Treat Hazardous Waste issued to Ft. A.P. Hill on 20 Jan 93 and amended on 27 Jan 93.

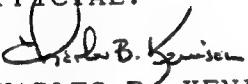
Enclosure 1 includes a Memorandum for Record prepared by the officer in charge of the detonation. As stated the memo, five separate shots were used. Shots 2 and 4 were characteristic of high explosive detonations. Shots 3 and 5 appeared to be white phosphorus. Shot 1 appeared to the EOD personnel to contain white phosphorus or another smoke material. All rounds in this shot passed the screening criteria established for detonation; solid filled with no chlorine signature. Although there may have been a smoke material in this shot, the smoke fills used during the WWI timeframe which could possibly have been in the rounds would not result in any toxic residue when detonated.

The memo also provides the results of monitoring performed immediately after the detonation. Gross level monitoring at the soil surface for cyanogen chloride (test 2), mustard (test 4), hydrogen cyanide (test 5), and phosgene (test 7) using the M18A1 chemical detector kit was performed after the detonation. The results were negative. Low level air monitoring for mustard using Depot Area Agent Monitoring System (DAAMS) tubes was performed during and after the detonation. The DAAMS tubes were analyzed at the Edgewood RD&E Center and the results were negative.

The emergency phase on the Spring Valley munitions recovery project has ended. You played a key role in allowing proper disposition of the recovered rounds and assuring the safety of the local population. I thank you for your assistance and cooperation.

GEORGE E. FRIEL
BG, USA
Commander,
Service Response Force

OFFICIAL:


CHARLES B. KENISON
COL, MS
Dir, Special Staff

USA TECHNICAL ESCORT UNIT
Aberdeen Proving Ground, MD 21010-5423

MEMORANDUM FOR RECORD

30 January 1993

SUBJECT: A.P. Hill Demolition Operations AAR

1. On 30 January, 1993, ninety munitions were taken to Range 77 and destroyed by detonation.

2. The sequence of events is as follows:

a. Upon arrival at Range 77, all equipment and personnel were downloaded and a briefing of the operation was given to all personnel.

b. While the demolition site was being prepared, the EPA personnel were laying out their sampling plan. Once their work was complete, the unnecessary personnel were directed to the safe area approximately 850 meters upwind of the demolition pits.

c. I set up the air monitoring equipment approximately 25 meters downwind of the demolition pits.

d. Once the site preparations were made, the munitions were prepared for disposal. Explosives used are as follows:

1000 ft. - Detonating Cord
37 ea - Non-Electric Blasting Caps
16 ea - Electric Blasting Caps
571 ea - Demolition Blocks M112 (C-4)

e. When the explosives were ready for priming, we called for clearance from the State of Virginia and Range Control to prime and detonate the charges. Five sequential shots were used utilizing the MK 122 Remote Firing Device. The composition and time of detonation for each shot is as follows:

#1 - 7 ea 3" Stokes	
3 ea 3" Projectile	1335:00 hrs
3 ea HE Components	
#2 - 4 ea Livens Projectile	1336:05 hrs
1 ea Smoke Pot	
#3 - 26 ea 75mm Projectile	1336:55 hrs
#4 - 26 ea 75mm Projectile	1337:40 hrs

SUBJECT: A.P. Hill Demolition Operations AAR 30 January 1993

#5 - 20 ea Igniters

1338:15 hrs

f. Shots #2 and #4 were characteristic of normal high explosive detonations. The debris clouds were normal and no unusual smoke or debris were seen. Shot #1 had a debris cloud that appeared to be either white phosphorous or a smoke compound. It was difficult to distinguish from the firing point. Shot #3 appeared to contain some white phosphorous projectiles based upon the cloud and the lingering phosphorous smell after the shots were cleared. Shot #5 appeared to be white phosphorous residue.

g. SGT J. Johnson and I proceeded down range to check the shots. We approached from upwind and performed gross level checks on each shot hole utilizing the M18A1 chemical detector kit. Tests 2, 4, 5, and 7 were performed. All results were negative. I certified the site clear and allowed for the sampling personnel to proceed down range to retrieve samples.

h. The results of the air samples taken are not yet complete. They are being submitted to the appropriate personnel for analysis. They will be directed to provide the results to the proper authorities upon completion.

i. No scrap or residue was found after detonation.

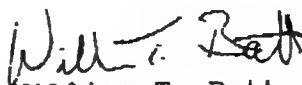
j. Once all sampling was complete, we departed enroute back to Spring Valley.

3. The operation was safe, efficient, and successful.

4. Demolition personnel were as follows:

OIC - 2LT Weber (USATEU)
NCOIC - SSG Ouellette (67th EOD)
Tech - SSG Martin (USATEU)
Tech - SSG Simmons (67th EOD)
Tech - SGT J. Johnson (USATEU)
Tech - SGT Provost (67th EOD)
Tech - SPC Depold (67th EOD)

5. POC is 2LT Weber at DSN 584-2526/2561 (HHD, USATEU).


William T. Batt
LTC, CM
Commanding

3 FEB 93 0196
1 CY READING FILE
ACTION:: SCBRD-ODC
INFO: 'SCBRD ODR-C
'AMSCB-ED
'AMSCB-CM

C1511-
13R1X
WIZIN.
T1ZU
CM1X

0196

PRIORITY

DATE: 033
TIME: 1812

PAAUZYUW RUCDNPB0252 0531520-UUUL--RUEANEW.

ZNR UUUUU

F 021420Z FEB 93

FM CDR PBA FINE BLUFF AR//SMCPB-SR// ✓
TO RULNAPG/CDR CBDA APG MD//AMSCB-CG// ✓
RULNAFG/DIR ERDEC AFG MD//SCBRD-ODR-C//
RUEPNIB/CDR AMCOM ROCK ISLAND IL//AMSMC-CO/AMSMC-SR
/AMSMC-TMA//

RUESJFA/CDR 549 EDDCC FT MEADE MD//TMC//

RUWTNFA/CDR 546 EDDCC FT SAM HOUSTON TX//TMC//

RHOGGIL/CDR 547 EDDCC FT GILLEM GA//TMC//

RUEOHN/A/CDR 18TH ORD DET FT BRABEC NC//TMC//

ZEN/CDR 52ND ORD DET FINE BLUFF AR//TMC//

RHDJAAA/89 AW ANDREWS AFB MD//CC/DC/LG//

RUVRFOP/317AW POPE AFB NC//CC/DC/LG//

RUVRPF/524ALG POPE AFB NC//XPL//

RUEOAGA/CDR FT LEE VA//ATZN-CG/ATZM-EOC//

RUCDGDA/CDR MICOM REDSTONE ARS AL//AMSMI-RA/AMSMI-RA-ER-MP//

RUCLBHA/14FTW COLUMBUS AFB MS//CC DC/LG/CX/CE//

RUCLALA/CDR USATO FT JACKSON SC//ATZJ-CG/ATZJ-PTM-P//

RUCLEWA/CDR USA CML MF CEN FT MCCLELLAN AL//ATZN-CG

ATZN-PTM-P//

PAGE 02 RUCDNPB0252 UNCLAS F 0196

RHDJAAA/CDR 149TH ORD DET ANDREWS AFB MD//ODC//

RUEANEW/CDR PAAEF WIEDE AAF AFG MD// ✓

RULNAFG/CDR AFG MD//SFARF-BP-F SFARF-FF-F ✓

RUEANEW/CDR USATO AFB MD//SCBTE-CG SCBTE-CG ✓

SCBTE-SE//

INFO RUEADWD/HQ DA WASH DC//DAMC-EWB/DAMC-EWA-EOC//DADS

DAMC-DCD//SFPS-PSF//SAIG-FD SAIC-FD//DADS-HRE

DAIC-TER//SAIC-EOC//

RUEBKA/CDR USA FT BELVOIR VA//MCNA-CM//MCNA-CM

RUELCAR/CDR AMG ALEXA VA//AMCCE AMCCE-C

RUEOBGR/CDR FORCOM FT MORRISON VA//AFIOC-OC//AFIOC-F

RULNAFG/CDR CBDA AFG MD//AMSCB-CM//

RULNAFG/CDR USA DMCA AFG MD//SFOL-NSF SFOL-CMC ✓

PRIORITY

PAGE: 2

/SFIL-NSZ//
ACCT DA-BHCWMA

BT

~~UNCLAS F O U G~~

SUBJECT: REPORT OF ARRIVAL, CBDA #93-03
A. MSG, CDR SERVICE RESPONSE FORCE, WASH DC 230200Z JAN 93,

PAGE 03 RUCDNFB0252 UNCLAS F O U G
SUBJ: NOTIFICATION OF INTENT TO CONDUCT EMERGENCY SHIPMENT.
B. MSG, CDR SERVICE RESPONSE FORCE, WASH DC, 260200Z JAN
93.

SUBJ: DELAY IN EMERGENCY SHIPMENT.
C. MSG CDR CBDA APG MD//AMSCS-CG//, 270300Z JAN 93. SUBJ:
NOTIFICATION OF INTENT TO CONDUCT AN EMERGENCY SHIPMENT,

CBDA

93-03.

1. SHIPMENT ARRIVED IN GOOD CONDITION AT FBA ON 25 JAN 93
AND PLACED IN STORAGE FACILITY AT 1607 HOURS.
2. FOR THIS INSTALLATION IS BELINDA F. GOLDEN, ALTERNATE
CHEMICAL SURETY OFFICER. BMCFB-6R. DSN: 966-2770 OR COM

(EO1)

540-2770.

BT

~~SECRET~~

NNNN

PRIORITY

PAGE: 2

3 FEE 3 0238
1 CY READING FILE
ACTION: AMSCB-CG
INFO: AMSCB-CG

PRIORITY

DATE: 034
TIME: 1329

0238

PTTUZYUW RUEADWD5300 0340316-UUUU--RUEANEW.

ZNR UUUUU

P 022046Z FEB 93

FM DA WASHINGTON DC //DAMO-ODO-CAT//
TO RULNAPG/CDR CBDA APG MD //AMSCB-CG// ✓

RUKGNEA/CDRUSACE WASHINGTON DC

RUEANYE/DIVENGR USAEDNA NYC NY

RUEACBE/DISTENGR BALTIMORE MD

INFO RUKLDAR/CDR AMC ALEXANDRIA VA//AMCCG//

RUEADWD/DA WASHINGTON DC //SAILE/DAMO-ZA/DAMO-OD/DAMO-SW//

RUKGNDW/CDRMDW WASHINGTON DC

RULNAPG/PM CHEM DEMIL APG MD //SAILE-PM/SAILE-MS// ~~400~~

RUKGNBA/CDRUSANCA FT BELVOIR VA //MONA-SU/MONA-CM//

RUEANEW/CDRUSAEHA APG MD //CDR//

BT

UNCLAS

CDR CBDA PASS TO SRF/DSC WASHINGTON DC FOR ACTION

SUBJECT: COMPLETION OF PHASE I (EMERGENCY RESPONSE) OPERATION SAFE REMOVAL, SPRING VALLEY, WASH D.C.

A. DA WASHINGTON DC DAMO-ZA 071423Z JAN 93 SUBJ APPOINTMENT AS ON SCENE COMMANDER (DSC)

B. CDRAMC ALEXANDRIA VA AMSLG-CG 071528Z JAN 93 SUBJ DESIGNATION OF

PAGE 02 RUEADWD5300 UNCLAS

SERVICE RESPONSE FORCE COMMANDER/ON SCENE COORDINATOR

C. 40 CFR 300 1 JUL 92

D. DA PAM 50-6 17 MAY 91

E. DA WASHINGTON DC DAMO-ODZ 151343Z JAN 93 SUBJ CHEMICAL EVENT PHASE I (EMERGENCY RESPONSE) TRANSITION CRITERIA

F. CDR SVC RESPONSE FORCE WASH DC 021646Z FEB 93 SUBJ COMPLETION OF PHASE I (EMERGENCY RESPONSE) OPERATION SAFE REMOVAL, SPRING VALLEY, WASH D.C.

1. PER RECOMMENDATION IN REF F, THE EMERGENCY RESPONSE PHASE IS TERMINATED EFFECTIVE 021930Z FEB 93. ENSURE REPORTS OUTLINED IN PARA 5, REF F ARE RENDERED.

2. IAW REF C AND D, COL J. RICHARD CAPKA, BALTIMORE DISTRICT ENGINEER IS APPOINTED REMEDIAL PROJECT MANAGER FOR PHASE II.

3. HQDA POC IS LTC MORRIS COLEMAN, DAMO-SWS, (703)697-1033.

PRIORITY

PAGE: 1

PAGE: 2

PRIORITY

BT
#5300
NNNN

PAGE: 2

PRIORITY



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF

Service Response Force Commander

2 February 1993

MEMORANDUM FOR

NATIONAL RESPONSE CENTER, HQ USCG, WASHINGTON, D.C. 20001

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION III, 841 CHESTNUT BUILDING, PHILADELPHIA, PA 19107

SUBJECT: Selection of Response Action

1. Issue. An assessment performed in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300, by the Service Response Commander/On-Scene Coordinator identified an imminent threat to the public health or welfare or environment due to the potential presence of hazardous substances, pollutants, and/or contaminants at Spring Valley, Washington, D.C.. Present at the site were over 100 World War I era munitions which have been recovered from an area near a utility trench in a residential housing development. The presence of these munitions presented a explosion/chemical agent release threat to the nearby populace. As a result of these conditions, immediate removal action pursuant to the Defense Environmental Restoration Program (DERP), 10 U.S.C. Sections 2701-2710, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9604, was needed at the site. The Army's authority to serve as the lead agency includes 10 U.S.C. Section 2701(c)(1) and 40 C.F.R. 300.120(c) of the National Contingency Plan ("DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions or weapons and munitions under the jurisdiction, custody, or control of DOD.").

2. Site Description. The site is located in the Spring Valley area of NW Washington, D.C., between Dalecarlia Parkway and Massachusetts Avenue south, of Westmoreland Circle. The area immediately around the site consists of recently constructed homes in a residential community. The trench where the munitions were discovered is within several feet of the front of one home still under construction. The area under development for residential property is owned by Miller Companies.

3. Site Background.

a. On 5 January 1993, a construction crew working a back-hoe at 52nd Court, NW, Washington, D.C., uncovered several buried munition

items while digging a utility trench for a newly constructed house. The land had been used during World War I by the Research Division of the Chemical Warfare Service (1917-1919) as a site for the development of chemical warfare materiel.

b. The American University in Washington, D.C., was a center of U.S. Army chemical warfare research, development, testing and training during the years 1917-1919. American University's facilities were used by the Chemical Warfare Service for research, testing, and the training of soldiers in all aspects of chemical warfare. Over 100 acres of land north and west of the campus were also leased by the federal government. The effort was first conducted under the overall direction of the Bureau of Mines, and later by the Army's Chemical Warfare Service. All chemical warfare equipment, stocks, and personnel were subsequently transferred to Edgewood Arsenal, Maryland by 1919. The leased property was acquired by the Miller family in 1926, and has been largely developed over the years into a residential community.

4. Summary of Service Response Force Actions.

a. On 5 January 1993, the Military District of Washington (MDW) Emergency Operations Center received a request from Washington, D.C. Office of Emergency Preparedness to dispatch the 67th Explosive Ordnance Demolition Unit (EOD) to the site. The 67th EOD immediately responded and identified the potential presence of chemical munitions in the area of the trench. They requested assistance from the Technical Escort Unit (TEU) at Aberdeen Proving Ground, MD. The TEU arrived later that day. Preliminary investigation and identification of the visible munitions indicated they were of World War I origin and were designed to deliver chemical agent payloads. Objects initially recovered included, (4) intact, fuzed Stokes rounds; (1) intact fuzed 105mm round; (3) 75mm projectiles; and 11 Livens projectiles. Although this was reported as a chemical event, no evidence of chemical surety or chemical agent contamination was detected.

b. Brigadier General George E. Friel was designated by the Dept. of the Army as Service Response Commander/On Scene Coordinator on 7 January. He arrived on site on 7 January and assessed the site. He determined that the presence of munitions described above presented an imminent and substantial danger to the public health and welfare. Based upon an initial hazard analysis, he devised and implemented an emergency evacuation plan. The TEU continued operations to prepare materials extracted from the site for transport and removal.

c. On 8 January, a Service Response Force Operations Center was established on site. Additional TEU teams arrived on 10 January to support operations. A Service Response Force Staff and Operations Center was established on site on the same day. TEU continued to recover munitions in the soil excavated by the contractor while digging

the utility trench. Munitions recovered were removed from the trench, analyzed and packaged in the immediate vicinity of the trench.

d. A risk assessment and hazard analysis was conducted at the site which led to the development of worker safety rules and a 300 meter safety zone around the site. The safety plan called for residents to voluntarily evacuate their homes during the hours in which TEU was conducting removal operations. Evacuations were conducted 5-8 January, 11-15, and 21 January to 28 January 1993.

e. On 12 January, the two main piles of soil left by the contractor had been cleared of munitions and scrap metal. By the end of the day, a total of 58 munitions had been recovered from the area of the trench.

f. By the close of operations on 13 January, 59 munitions had been recovered, with 18 munitions packaged in Single Round Containers, in preparation for transport by military aircraft.

g. 17 liquid fill munitions were transported by military aircraft to Pine Bluff Arsenal on 15 January for storage pursuant to the permits to transport and store hazardous waste issued by the State of Arkansas.

h. On 16 January, 3 sample munitions were transported by military aircraft to Edgewood Research Development & Engineering Center at Aberdeen Maryland for sampling. Two of the munitions were determined to contain fuming sulfuric acid, an early experimental smoke materiel. No presence of chemical agent was detected in any of the munitions. By the end of the day, a total of 83 munitions had been recovered. Recovery operations were suspended until 21 January because inauguration activities made further operation impractical.

i. Recovery operations resumed on 21 January as planned. As of 30 January, 141 munitions have been recovered.

5. Quantities of Munitions Recovered (as of 30 January).

a. Munitions recovered:

Liquid filled	31
Solid filled	110
Unassessed	0
Total	141

b. Liquid filled munitions shipped off-site:

Levins projectors	17
4.7 inch projectiles	7
75mm projectiles	<u>27</u>
Total	51

c. Recovered munitions remaining on-site (the last air transport took place on 30 January):

Liquid filled	0
Solid filled	0
Unassessed	<u>0</u>
Total	0

6. Types of Substances Present.

a. Munitions at the site have been evaluated by visual inspection, Portable Isotopic Neutron Spectroscopy, and warming box sampled with air monitoring equipment. The warming box is used to warm unknown solid filled rounds to a temperature where two chemical agents, mustard and bromobenzylcyanide, would melt. If this occurs, the round is reclassified as "liquid filled, potentially agent." 27 munitions show potential for agent fill.

b. Samples have been taken from the soil inside the trench as well as excavated soil for testing and analysis. The soil samples were tested for the substances listed below:

Mustard
Arsenic
Chloroacetophenone (CN)
Cyanogen Chloride
Chloropicrin
Phosgene
Mercury
Lead
Chromium IV

All testing reveals substantially lower than medically significant concentrations and EPA action levels or no detectable quantities at all. Testing of the nearby stream and reservoir have not revealed any detectable quantities.

c. In addition, samples were taken from individually recovered items of scrap or munitions. A residue of Lewisite breakdown products and Adamsite have been detected from recovered glassware.

7. National Priorities List Status. The Site has not been evaluated for placement on the National Priorities List (NPL). A remedial investigation and site assessment will be conducted by the Baltimore District Office of the Corps of Engineers.

8. Coordination with State Environmental Authorities. Coordination was made with the State of Virginia to transport by air high explosive solid fill munitions to Fort A.P. Hill for demolition. An emergency permit to treat hazardous waste was granted by the State of Virginia. Coordination was also made with the State of Arkansas to transport and store suspected liquid filled munitions to Pine Bluff Arsenal. An emergency permit to transport and store the materiel as hazardous waste was granted by the State on 11 January. Arrangements were also made with the State of Maryland to allow the shipment and testing of sample munitions to Aberdeen Proving Ground, Edgewood Area, for sampling. Maryland determined that this action was exempt from hazardous waste regulation under an exclusion for laboratory samples, 40 C.F.R. 261.4(d). Hazardous waste identification numbers were obtained from the District of Columbia.

9. Threats to Public Health or Welfare or the Environment. Section 300.415 of the NCP lists the factors to be considered in determining the appropriateness of a removal action. Paragraphs (b)(2)(i), (ii), (iii), (vi), and (vii) of Section 300.415 directly apply as follows to the conditions at the Spring Valley site.

a. 300.415(b)(2)(i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants[.]"

The potential for direct human contact is substantial due to the urban location of the site. Residential homes are in very close proximity to the site. Any releases from the site would constitute a direct contact hazard to the immediate community.

b. 300.415(b)(2)(ii) "Actual or potential contamination of drinking water supplies or sensitive ecosystems[.]"

The potential for water contamination exists due to the proximity of a small stream and a reservoir, which is a source of drinking water for the community. Contamination of groundwater could adversely affect the water quality in the stream and groundwater.

c. 300.415(b)(2)(iii) "Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release[.]"

A total of 141 munitions items to date have been recovered from the site and tested by various means to determine possible fill. The results showed positive tests for nitrogen indicating potential explosive compounds stored in the munitions. Results also indicated the presence of chlorine in certain items, indicating possible toxic

agent fill. Inspection of the munitions revealed heavy corrosion with the potential for leaking. However, test and analysis results to date have not detected the presence of chemical warfare agents in the random soil samples tested to date. Personnel working in the pit recovered individual items which appeared likely to have residual contamination for testing and analysis. These items included glass fragments and discolored soil. Testing of certain glass fragments recovered from the site were determined to contain compounds related to the vesicant Lewisite (L), including its hydrolysate chlorovinylarsenic acid (CVAA) and/or intact L. It should be noted that both are hazardous compounds. Localized pockets of specific soil noted to have an oily sheen was removed in its entirety and tested, revealing the presence of the intact vomitant DM, and its various degradation products. A fuse leaking with a dark viscous liquid revealed the presence of intact lachrymator CN, and its various degradation products.

d. 300.415(b)(2)(vi) "Threat of fire or explosion[.]"

The munitions present the potential for fire or explosion.

e. 300.415(b)(2)(vii) "The availability of other appropriate Federal or state response mechanisms to respond to the release."

The EPA Region III Emergency Coordinator was present at the site, as well as representatives from the Federal Emergency Management Agency and the District of Columbia. Representatives from Occupational Safety and Health Administration and U.S. Public Health Service visited the site and were briefed on the Service Response Force safety and environmental health procedures. Coordination effected with the Dept. of Health and Human Services gained approval of measures implemented to protect human health and safety in connection with the recovery and transportation of chemical agents and materials. Pursuant to 10 U.S.C. Sections 2701-2710 and 40 C.F.R. 300.120(c), DOD is the removal response authority for incidents involving DOD military weapons and munitions under the jurisdiction, custody or control of DOD. As a result, removal operations were conducted pursuant to applicable federal statutes and federal and Army regulations.

10. Remedial Action. The response action is divided into two phases. Phase I consists of conducting emergency recovery and removal of all munitions and related materiel from the site by the Service Response Force. Phase II will consist of site survey and remediation/restoration operations conducted by the Baltimore District of the Corps of Engineers. The site has been determined to be a Formerly Used Defense Site.

11. Compliance with ARARs. The removal action set forth in this memorandum will comply with applicable, relevant, and appropriate environmental and health requirements (ARARs), to the extent practicable, considering the exigencies of the situation. These include RCRA requirements for manifesting and disposal, and DOT regulations for transportation. Coordination will continue to be made with appropriate States to ensure that all identified State ARARs are complied with to the extent practicable, during all phases of this removal action. Coordination with the District of Columbia Environmental Regulation Administration (202-1167) confirms that applicable ARARs have been complied with.

12. Documents that form the basis for the response action included plans prepared by the SRF staff (see enclosures), as well as Army regulations, Army pamphlets, and emergency response plan, which are listed below:

- a. Army Reg. 50-6, Nuclear and Chemical Weapons and Material, Chemical Surety.
- b. Army Reg. 50-6-1, Chemical Agent Surety Program.
- c. Army Reg. 75-15, Responsibilities and Procedures for Explosive Ordnance Disposal.
- d. Army Reg. 190-40, Serious Incident Report.
- e. Army Reg. 200-1, Environmental Protection and Enhancement.
- f. Army Reg. 200-2, Environmental Effects of Army Actions.
- g. Army Reg. 385-61, Army Toxic Chemical Safety Program.
- h. Army Reg. 385-64, Ammunition and Explosives Safety Standards.
- i. Army Reg. 740-32, Responsibilities for Technical Escort of Dangerous Materials.
- j. DA Pam. 50-6, Chemical Accident or Incident Response and Assistance (CAIRA) Operations.
- k. DA Pam. 385-3, Protective Clothing and Equipment.
- l. U.S. Army Materiel Command Chemical Service Response Force Commander's Emergency Response Plan.

13. Conclusion. The Service Response Force has mitigated hazards on site, protected the public, and removed all munitions and associated materials found at the site. The sampling plan was implemented to verify the absence of hazards at the site. Phase I required the Commander, Service Response Force/on-Scene Coordinator to determine that the threat of imminent risk has been eliminated, and that all liquid and solid filled munitions and other debris are removed, containerized, rendered safe for transportation and removed from the Spring Valley residential area. Also required was a determination that the soil in, removed from and immediately surrounding the excavation area meets standards set by the Environmental Protection Agency (EPA), the Army Surgeon General, and the Occupation Safety and Health Agency. The emergency has been terminated and the Service Response Force will pass control of the event to the Baltimore District of the Corps of Engineers for Phase II, which will conduct environmental remediation and recovery operations.



George E. Friel
Brigadier General
Service Response Force Commander/
Federal On-Scene Coordinator

Enclosures

1. Hazard assessment plans
2. Verification plan 14 Jan 93
3. Sampling plan
4. Transportation plan
5. Transportation plan
6. Security plan

DECISION. Based on the risk assessment, dated 23 Jan 93, the following safety precautions are directed to be implemented:

ENGINEERING CONTROLS

DATE IMPLEMENTED	CDR INITIALS	PROVISION
<u>21 JAN 93</u>	<u>✓ NAD</u>	Provide local exhaust for the pit.

PERSONAL PROTECTIVE CLOTHING IN PIT

DATE	CDR INITIALS	LEVEL
		Modified Level A
		Level A
		Level B
<u>26 JAN 93</u>	<u>✓ NAD</u>	Level C with Saranex/Tyvek in Assessment Area. A 5 meter work zone.
		Level C
<u>6 JAN 93</u>	<u>✓ NAD</u>	Level D with Saranex/Tyvek for working in Help Area during Routine Excavation operations. Level C Level D to be worn when handling suspected specific chemical munitions.

MONITORING

12 JAN 93 ✓ NAD The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

12 JAN 93 (1) Background low-level (bubblers) monitoring for Lewisite.

12 JAN 93 (2) Breathing zone sampling for mustard using DAAMS tubes.

24 JAN 93 (3) Continuous background sampling for phosgene in the pit.

Encl 1

DATE
IMPLEMENTED

CDR
INITIALS

12 JAN 93

WTS

The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

see above WTS

12 JAN 93 (1) Background low-level (bubblers) monitoring for lewisite.

12 JAN 93 (2) Breathing zone sampling for mustard using DAAMS tubes.

12 JAN 93

✓

The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

12 JAN 93 (1) Background low-level (bubblers) monitoring for lewisite.

12 JAN 93

✓

The RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit.

WORK ZONES

By exception 11 Jan 93 WTS Establish the pit as a special work zone for increased level of respiratory protection.

as required 5 Jan 93 WTS Establish hot line / EPDS

5 Jan 93 WTS Establish public exclusion area during operating hours.

✓ Do not establish the pit as a special work zone for increased level of protection.

Directed:

W. T. Batt

William T. Batt
LTC, CM
Commander, TEU

Approved:


George R. Friel
BG, USA,
Commander, SRF

23 JAN 93

AMSCB-CO (385(A))

MEMORANDUM FOR RECORD

SUBJECT: Revised Risk Assessment for Safe Removal of Chemical Filled Unexploded Ordnance at the American University Chemical Warfare Center Site (Operation Safe Removal)

1. REFERENCES.

- a. Technical Paper No. 10, Methodology for Chemical Hazard Prediction, DDESB, June 1980.
- b. AR 385-61, The Army Toxic Chemical Agent Safety Program, 3 Nov 1992.
- c. AMCR 385-100, Safety Manual, 1 Aug 85.
- d. FM 3-9, Potential Military Chemical/Biological Agents and Compounds, 12 Dec 90.
- e. American University Data Base
- f. EA Tech Report, The Search for Toxic Chemical Agents, Benjamin Wittin, PhD, Nov 69.
- g. AR 385-64, Ammunition and Explosive Safety Program
- h. TM 9-1300-214, Military Explosive chemical Compounds
- i. TM 5-1300

2. PURPOSE. The purpose of this assessment is to update the 11 Jan 93 risk assessment developed in support of Operation Safe Removal. During the past ten days, enormous efforts have been made to continually review both the protective clothing and monitoring equipment on-site for this operation. The overall impact has been a reduction in the risk of chemical related injury. The safety and health of the soldiers and civilians charged with this mission is priority one. As with the 11 Jan 93 risk assessment, this update will show that the combination of protective clothing and area monitoring will provide the SRF Commander with options to minimize the risk of injury while performing operations under TEU SCP # TU-0000-M-013.

3. OPERATION DESCRIPTION.

- a. The Technical Escort Unit (TEU) has been given the task

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to expeditiously and safely recover, package, and remove exposed potentially explosive or chemically hazardous munitions or debris. This site was used during World War I as a site for the development of chemical warfare materiel.

b. The TEU continues to work under SOP NO: TU-0000-M-013, SOP For Explosive Ordnance Disposal (EOD) Response, 17 July 1992. To prevent personnel exposure a combination of protective clothing and general area/personal breathing zone monitoring is already being employed.

c. The range of potential chemical related munitions possibilities is defined in the 11 Jan 93 risk assessment and has not changed.

4. GENERAL SAFETY ANALYSIS.

a. The potential chemical hazards associated with this operation are numerous. At this point, the primary chemicals of concern are those traditionally used as fills for munitions. The chemicals of concern include mustard (H), lewisite (L), phosgene (CG), adamsite (DM), bromobenzylcyanide (CA), titanium tetrachloride (FM), chlorine (CL), bromoacetone (BA), cyanogen chloride (CK), sulfur trioxide-chlorosulfonic acid mixture (FS), chloropicrin (PS), fuming sulfuric acid and chloropicrin mixed with stannic acid (NC). The potential explosive hazards are 2,4,6 - Trinitrotoluene and Amatol.

b. Mustard (H). H is a vesicant or blister agent. Vesicants act on the eyes, lungs, and skin; and burn and blister the skin or any other parts of the body they touch. They damage the respiratory tract when inhaled and cause vomiting, diarrhea and a reduction in white blood cell count when absorbed. Some vesicants have a faint odor, others are odorless. They are often insidious in action and there is little or no pain at the time of exposure. Thus, in some cases, sign of injury may not be apparent for several hours. Of particular importance is the fact that mustard is a known human carcinogen and therefore must be handled IAW the strict standards for the use of these substances as well as those pertaining to surety materials. The freezing point of mustard is 58 degrees F.

c. Phosgene (CG). Below 47 degrees F, or under pressure in munitions, CG is a colorless liquid. It boils at 47 degrees and has the odor of fresh-cut hay. When inhaled, it irritates the lungs and causes pulmonary edema. The first symptoms noted in a strong concentration are: pronounced and almost uncontrollable

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coughing, together with a choking sensation, a feeling of tightness in the chest, occasional vomiting, headache, and lacrimation. The danger, however, lies in the fact that low concentrations that are not particularly irritating may, after an interval of several hours, produce serious respiratory symptoms and even death. Symptoms appearing after a time interval are difficulty in breathing, rapid pulse, weakness, coughing with watery expectoration, and cyanosis. (ref. 1c)

d. Chloropicrin (PS). PS is a pungent, colorless, oily liquid. It is very volatile and is usable during any season to produce incapacitating or lethal concentrations. PS is a powerful irritant whose vapors cause nose and throat irritation, coughing, and vomiting. As an eye irritant, it produces immediate burning, pain, and tearing. Even in very limited concentrations, PS causes the eyelids to close. In high concentrations, PS damages the lungs, causing pulmonary edema. In liquid form it causes severe burns on the skin that generally result in blisters and skin lesions. PS decomposes into chlorine gas and nitrogen oxide near open fires, producing additional toxic vapors. The freezing point of PS is -91 degrees F. (ref 1d)

e. Lewisite (L). L is an arsenical vesicant. It is a liquid with an odor of germaniums or very little odor when pure. It produces effects similar to mustard. One main difference is that L produces immediate pain. Liquid L causes immediate burning sensation in the eyes and possible permanent loss of sight. It has about the same blistering action on the skin as does H, even though the lethal dosage for L is much higher. Skin exposure to L produces immediate pain and reddening of the skin starts in 30 minutes. Blistering will be well developed in 12-13 hours. Skin burns are deeper from L exposure than from H. When inhaled in high concentrations, lewisite may be fatal in as short a time as 10 minutes. The freezing point of L is between -18 and -0.1 degrees C depending on the purity. (ref 1d)

f. Cyanogen Chloride (CK). CK is a blood agent. It is a colorless, highly volatile liquid with a pungent, biting odor that will go unnoticed because CK is highly irritating to the eyes and mucous membranes. CK irritates the respiratory tract similar to phosgene; fluid may accumulate in the lungs much faster than in phosgene poisoning. CK is highly irritating to the eyes and mucous membranes. CK is a lethal agent due to interference with the use of oxygen by the body tissues. High concentrations may degrade the filter of protective masks and reduce the masks protective capabilities. The boiling point of

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CK is 55 degrees F. It will polymerize to form the solid cyanuric chloride which is corrosive. Impurities promote polymerization which could become explosive. (ref 1b)

g. Bromobenzylcyanide (CA). CA is a tear-producing compound. It produces a burning sensation of the mucous membranes and severe irritation and tearing in the eyes with acute pain in the forehead. It is a yellow solid or liquid, depending on temperature and purity. CA was the most powerful tear-producing agent used in World War I. (ref 1f)

h. Bromoacetone (BA). BA is a tear-producing compound. It is a colorless liquid. The boiling point is 135 degrees C (275 degrees F). It is a lachrymator and a vesicant as a liquid. It forms blisters which heal rapidly but are very painful. (ref 1e)

i. NC (Mixture of PS and Stannic Acid). Same effects as chloropicrin (PS).

j. Titanium tetrachloride (FM). FM is a heavy colorless liquid acid-type agent with a pungent odor. It can be readily detected by the large quantity of smoke produced when it leaks. It is used solely to produce smoke and has slight toxic effects; however, protective masks are required. Liquid FM will cause acid burns to the skin. Large quantities of smoke produce a choking sensation and causes difficulty in breathing, thus a protective mask is required for the comfort of the worker. Heavy concentrations in enclosed places can result in serious injury. The liquid can be removed with large quantities of water. In extremely heavy concentrations, canisters of protective masks may become clogged to such an extent as to render breathing difficult. If this occurs, mask or canisters must be exchanged for others in serviceable condition. Spillage can be removed by washing with large quantities of water. The freezing point of FM is - 11 degrees F. (ref 1c)

k. Sulfur trioxide-chlorosulfonic acid mixture (FS). This is a heavy liquid acid-type agent which fumes strongly in air and decomposes above 154 degrees F. It has an acrid odor. It is used solely as a smoke-producing agent. Exposure to heavy concentrations may cause severe irritation to the skin, eyes and respiratory tract. Inhalation of concentrated fumes causes coughing and strangulation, a feeling of constriction around the chest, burning of the nose and throat and hoarseness. When the mixture comes in contact with moisture, it forms hydrochloric acid and sulfuric acid. These acids are very corrosive to metals and fabrics. If FS is applied directly to the skin, a burning

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sensation is felt at once and an acid burn follows. Any FS mixture on the skin or clothing should be thoroughly wiped off with a dry cloth and the contaminated area flushed with large amounts of water. FS mixture is nonflammable, but may cause fires if spilled on flammable material, particularly under damp conditions. Spillage can be removed by washing with large quantities of water. Small quantities of water added to FS reacts violently. (ref 1c)

l. Adamsite (DM). DM is a vomiting compound. It produces strong pepper-like irritation in the upper respiratory tract, with irritation to the eyes and tearing. It causes violent uncontrollable sneezing; cough; nausea; vomiting; and a general feeling of bodily discomfort. DM is a solid (light yellow to green crystals). It produces its effects by inhalation or by direct action on the eyes. (ref 1d)

m. Fuming Sulfuric acid. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may be fatal as a result of spasm, inflammation and pulmonary edema. Reacts violently with water. (ref MSDS)

n. 2,4,6 Trinitrotoluene. Historical files show that Trinitrotoluene (TNT) was the standard fill for both the payloads and bursters in most of the candidate rounds. Although 50/50 amatol was also used as a fill for 75mm MK III HE projectiles, the quantity (1.61 lbs) was less than the TNT fill (1.66 lbs). Because amatol 50/50 is a little less impact and initiation sensitive than TNT, and only a little less stable than TNT, assumptions made about TNT munitions are accepted for Amatol 50/50 fill munitions. TNT is a yellow, crystalline compound with molecular weight of 227.13, melting point of 80 to 81 degree C, and boiling point of 345 degree C. At ordinary temperatures TNT is essential nonvolatile. TNT is one of the least sensitive of military explosives. Impact tests yield high values relative to other military explosives. TNT has high minimum detonating charge values from initiation by primary explosives. The presence of only 7% moisture prevents detonation by a #6 blasting cap. TNT is not classified as dangerous with respect to electrical sparks. When ignited in free air, TNT dust burns completely without detonation. TNT shows no deterioration after 20 years of magazine storage. Therefore, it must be considered stable and does not deteriorate over time. TNT requires relatively high external stimuli to initiate detonation. An intact explosive train (detonation wave) is essential for initiation.

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Q. To support safe chemical operations, safety zones of 10 meter (around the immediate pit), 150 feet (the hot line), and 300 meters (civilian evacuation zone) have been established. Each zone serves to control access and limit the potential exposure population.

5. HAZARD ANALYSIS.

a. Risk Assessment Codes. The risk assessment codes used in this document were taken from AR 385-10. A description of these codes is attached as enclosure 1.

b. Possible Chemical Scenario. As with the 11 Jan 93 risk assessment, the most likely exposure to the above chemicals is going to occur when TEU personnel are either digging in the soil around the site or when handling the munitions. Upon finding suspect chemical filled rounds, gross level checks (M18A2 and/or CAM) are made, the round is thoroughly examined, placed in plastic, X-rayed and finally placed in shipment containers for transport. In the event there is contact with a chemical agent or the detection of a chemical agent with monitoring devices, the operation would cease and the exposed personnel would be safely removed from the site to receive appropriate medical attention.

c. Chemical Risk Assessment. In defining the risk of exposure to the above listed potential chemical fills, one must look at possible routes of entry into the body and then determine the manner best suited to reduce potential exposure. The possible chemical agent hazards to be considered for this operation are: vapor to skin, liquid to skin, and inhalation of vapor.

(1) Dermal route of entry.

(a) Mustard and adamsite. The low temperatures at the site (averaging below freezing) significantly reduce the liquid and vapor to skin hazards for mustard and adamsite. Both of these compounds will be solid at current temperatures.

(b) CG, PS, NC, and BA. The toxicological literature has not shown passage into the body through the skin to constitute a significant hazard with these chemicals.

(c) Lewisite, fuming sulfuric acid, FS, and FM. The major dermal chemical hazards at this point are Lewisite, fuming sulfuric acid, FS, and FM. Lewisite at these temperatures could remain as a liquid and could permeate readily through most protective clothing and to the skin. Likewise fuming sulfuric

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acid, FS, FM and their degradation products, pose a significant acid hazard to the skin.

(d) In summary, the risk of chemical injury through dermal contact (either vapor or liquid) without protection is II-B, critical-probable.

(2) Respiratory route of entry.

(a) The overwhelming concern at this point of the operation is vapor inhalation from Lewisite, Phosgene, PS, CK, FM and NC. Calculations developed by Mr. Mike Myirski (enclosure 2) show that even a small release of a chemical agent like Lewisite will produce an area 10 meters in diameter that is above the Surgeon General's Airborne Emission Level (AEL).

(b) It is clear from the above scenario that the probability of vapor exposure through inhalation is probable because if there is a chemical agent release before it is visibly detected, the probability of a worker inhaling chemical agent vapors is high. Therefore the risk of respiratory contact with chemical agent vapors (i.e. Lewisite, Phosgene) without protection is I-B, catastrophic-probable.

(3) Reduction of the risk. The 11 Jan 93 risk assessment described three methods to reduce the risk of chemical agent injury. This assessment will recount the three and add a fourth. The methods follow:

(a) Engineering Controls. This concept is to reduce risk by containing or ventilating the hazard. The option of engineering controls is presently very limited at the Spring Valley site. The only viable engineering control available at this time is to provide a local exhaust system for the pit. This would eliminate many of the potential chemical vapor hazards in the pit. Unfortunately, this method will not remove all vapor hazards and would not negate the need for respiratory protection if a leaking round is encountered.

(c) Protective Clothing. This concept is to reduce risk by providing protective clothing and equipment to isolate the worker from the hazard. The options are as follows:

(1.1) Modified Level A. This ensemble is a M3 butyl rubber suit, boots, gloves, air hose sleeve with a M30 hood and Self-Contained Breathing Apparatus (SCBA). This ensemble is not a positive pressure system, but provides total

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body contact protection agent chemical agents. This ensemble is approved for Immediately Dangerous to Life and Health (IDLH) and is the DA Safety recommended (AR 385-61) level of protection for work in unknown environments to include work with suspect mustard and lewisite contamination. With the above level of protection, the risk of dermal chemical injury is II-E, critical and improbable. The respiratory chemical injury risk is I-E, catastrophic-improbable.

(1.2) Level A. This ensemble is a M3 butyl rubber suit, boots, gloves, hood with a M9 military mask. This ensemble is not a positive pressure system and is not approved for IDLH environments. It does however provide total body contact and respiratory protection against a wide range of chemical agents. With the above level of protection, the risk of dermal chemical injury is II-E, critical and improbable. The respiratory chemical injury risk is I-D, catastrophic-remote.

(1.3) Level B. This ensemble is a M3 butyl rubber suit, boots, gloves, apron and a M9 or M17 military mask. This ensemble provides dermal splash protection to the hands, arms, and front of body and feet. It provides respiratory protection against a wide range of chemical agents. With the above level of protection, the risk of dermal chemical injury is II-D, critical and remote. The respiratory chemical injury risk is I-D, catastrophic-remote.

(1.4) Level C. This ensemble consists of gloves, boots and the M9 or M17 military mask. This level provides dermal protection for the hands and feet. TEU has modified this level by adding Saranex/Tyvek chemical resistant body suits for additional dermal protection. It provides respiratory protection against a wide range of chemical agents. With Level C (with Saranex/Tyvek suit) the risk of dermal chemical injury is II-D, critical and remote. The respiratory chemical injury risk is I-D, catastrophic-remote.

(1.5) Level D. This ensemble consists of butyl gloves and boots with coveralls. A M9/M17 military mask is slung for emergency egress. This level provides dermal protection for the hands and feet. It provides no respiratory protection against chemical agents. TEU has modified this level by adding Saranex/Tyvek chemical resistant body suits for additional dermal protection. Level D (with Saranex/Tyvek suit) generates the following risk of dermal chemical injury is II-D, critical and remote. The respiratory chemical injury risk is I-B, catastrophic-probable.

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(b) Monitoring. This concept is to reduce risk by monitoring the air to provide warning of hazards. The options are as follows:

(1.1) First Entry Monitoring (FEM) of the pit is possible for mustard with the Real Time Analysis Platform (RTAP). The RTAP combines a gas chromatograph with an automatic continuous environmental monitoring system that collects compounds on a solid sorbent trap, thermally desorbs them into a capillary gas chromatography column, and detects the compound with a flame photometric detector. It is a low level monitor designed to respond to 0.003 mg/m³ for mustard in less than 15 minutes with alarm capability. Unfortunately, this method is good for one chemical agent, mustard, and has a 15 minute delay in response. This would not negate the need for respiratory protection if a round had been leaking before first entry.

(1.2) The RTAP also has the capability to provide continuous low-level real-time monitoring for mustard in the pit and to provide an on-site screening analytical capability (mustard and lewisite) for other samples (soil and air) from around the site. Unfortunately, this method is limited in the chemicals it can search for and has at least a 15 minute delay in response. This would not negate the need for respiratory protection if a leaking round is encountered.

(1.3) Another form of monitoring involves breathing zone sampling using Depot Area Air Monitoring (DAAMS) tubes. This method will document exposure to mustard, but unfortunately will not prevent exposure. These samples could be analyzed daily and will provide a low-level historical account of worker exposure.

(1.4) In the event TEU personnel suspect contamination with cyanogen chloride, phosgene, sulfuric acid, arsine or chloropicrin, Draeger detection tubes are available to provide area monitoring. This assessment can be made with the use of commercially available detection tubes for the materials. However, due to the target chemicals high volatility, effective capture of representative samples of suspect liquid is not assured. Unfortunately, this level of monitoring will not serve to prevent exposure, but will be used to document the presence of targeted chemical hazards in the area.

(d) Administrative Work Zones. The concept is to reduce overall risk by reducing the number of people at risk or by establishing different protective requirements from one zone

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to another. The calculations shown as enclosure 2 show a realistic Lewisite inhalation hazard within a 10 meter area around the pit in the event a spill were to occur. The work zone approach would create an area that could be marked off which would require all workers entering the area of concern to be an increased level of respiratory (i.e. SCBA/M17 mask) and dermal (i.e. butyl rubber suit) protection. This would reduce the risk of injury regardless of the chemical agents encountered. Workers outside this area would remain in Level D (mask slung) unless an emergency situation (i.e. leaking munitions) were encountered. This method will reduce the number of workers required to wear protective clothing by establishing levels of protection based on work location.

d. Explosive Risk Assessment.

1. Explosive Scenarios. Detonation of either a HE round, or of the TNT mixed in the soil are the possible two scenarios. Because of TNT stability, relatively high external stimulation initiation requirements, and total desensitizing to initiation by 7% moisture, detonation of loose TNT found mixed in the soil is not a credible scenario.

2. The remaining scenario is credible. Although the probability is low, a round could detonate during any of the following handling scenarios: during initial uncovering/excavation and handling within the pit; during assessment (identification) procedures; during packing; or shipment.

3. To date, 3" Stokes HE mortars, 3" WP Stokes Mortars, 75mm HE Projectiles, 75mm WP Stokes Mortar, and WP initiators are the likely identities of the recovered conventional munitions. Of these, the 3" Stokes HE mortar has the largest HE (2.5 lbs) and WP (1.6 lbs) payloads. The potential smoke and other solid fills would not generate detonation waves, and any resulting deflagration would be less hazardous than an HE detonation..

(a) The maximum amount of explosive contained in any explosive component of currently identified possible chemical rounds (3" Stokes mortar, 75mm projectile, and Levins projectile) is 100 grams.

(b) The rounds are handled one at a time. Therefore, any incident /detonation during handling or assessment would only involve one round.

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(c) Military fuzes have safety and arming devices. Unless these devices are damaged, removed (safety pins), missing (bore safe pins), or other indications that the round may have been fired, these rounds should not be armed. Some fuzes require stimuli close to normal functioning forces (set back) to arm undamaged fuzes. Range duds should have been detonated in place upon discovery in 1919 and not disposed of in the pit. Therefore, while remote there is a probability that armed fuzed munitions will be found during excavation activities. TEU personnel are EOD trained to identify and determine if fuzes are armed. They have specific instruction and techniques for handling armed munitions. Due to this training and the nature of TNT, there is only a remote probability that a round would detonate during assessment and handling. Due to the difficulty of initiation of TNT, the probability of round detonating should be significantly reduced for unfuzed HE rounds.

(d) Due to TNT's stability, lack of relative sensitivity, and difficulty of initiation, the greatest hazard will exist during any handling prior to determining if the fuze is armed and functional.

(e) Bursters installed in WP rounds would not create the overpressure that the HE rounds would produce. Any actions taken to protect personnel against the effects of a HE detonation would also protect personnel from the effects of initiation of a WP round.

(f) The detonation of a fuzed 3" Stokes HE mortar (highest HE fill of candidate rounds) during initial handling within the pit would be the maximum credible event. This scenario would also produce the probable maximum fragmentation hazard array and expose the most personnel.

4. Explosive Hazard Analysis.

(a) The accepted amount of overpressure that the human body can withstand and not suffer damage is 2.3 psi. Eardrums will rupture at 3.4 psi and lungs will rupture at 5.4 psi.

(b) Engineering controls are not a viable option at the site. There is no known portable remote control equipment which could perform the excavation and initial handling. Standard substantial dividing walls or barricades are not available or viable option to obtain. Pallets of bricks are

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available on site and could be positioned to act as shields around explosive storage location. These barricades should be effective in preventing low level fragments from striking the storage containers in the event of a explosion at another on site location. It is improbable that these makeshift barricades would contain the effects of a detonation within the storage container. The bricks would likely become secondary fragments. However, it is also improbable that stored rounds will spontaneous detonation with out an external stimulus based on the characteristics of TNT.

(c) Administrative controls are a effective means of limiting both the number of personnel exposed to the hazard and the severity of the hazard. Only the minimum number of personnel are allowed down range due to the potential explosive and chemical threat.

(d) Personnel protective clothing would provide only marginal additional protection. Flack jackets and military helmets would provide a measure of protection from fragments. However, the head would still be significantly exposed. The jacket should provide additional protection to most vital organs. However, nether provides protection from the expected overpressure which would be generated close to a high order detonation.

(e) Risk from found HE rounds. The primary hazard from the detonation would be the resulting overpressure. Separation of all but essential personnel from the explosives provides the best protection. Personnel exposed to 2.3 psi would not experience any harmful effect. Inhabited building distance (IHB) ensures that unprotected personnel are not subject to overpressure above 2.3 psi as the result of an unintentional HE detonation. Required IHB separation distance is determined by the equation $d = 40w^{1/3}$. Therefore, 58 feet is the minimum separation distance to unrelated personnel which would provide minimum protection from overpressure from the maximum credible event. For the expected quantity of HE (less than 100 lbs) that will be recovered during excavation, the regulatory default fragmentation safety distance (670') will protect personnel from both primary and secondary fragments. Nonessential personnel are required to evacuation from a 984' clear zone daily before operations can begin. Therefore, the risk of exposure of nonessential personnel (i.e., civilians) to harmful overpressure or fragments is assessed as I-E catastrophic - improbable.

(f) Assessment of chemical munitions explosive

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risk. Detonation of 100 grams of TNT would produce predicted overpressures of 270 psi and 3.4 psi at 1.5 feet and 7.6 feet, respectively. This occurrence would be lethal to personnel handling the munitions, and as a minimum, rupture the ear drums of personnel within 7.6 foot radius. Primary and secondary fragment are also likely, but the overpressure is the far greater hazard to handlers. Risk assessed for operators in the immediate vicinity (with in 1.5 feet) if a chemical round detonate is I-A Catastrophic - frequent. At IHB distance (26 feet) predicted overpressures should be reduced to 2.3 psi and fragmentation would become the major risk. The walls of the pit should provide a measure of protection from low flying fragment. Therefore, the risk assessment for operators outside of the pit (a minimum of 30 feet from the detonation) is I - D Catastrophic - remote

(g) Assessment of maximum credible event.
Detonation of a HE round would have the same results for personnel in the immediate area as a chemical round, but would increase to ear rupture zone to approximately 54' and IHB distance (2.3 psi) to 58 feet.

(h) Intraline separation distance prevents the detonation wave from initiating other rounds in the area. The formula $d = 18w^{1/3}$ will provide safe separation distance between the operations explosive locations. The maximum credible event's net explosive weight (NEW) (2.5 lbs) would require a minimum of 26 feet between the pit, assessment, and storage locations to prevent propagation between explosive sites. Current separation between these site exceed this requirement. Risk of propagation is assessed as I-E catastrophic - improbable.

(i) Risk from primary and secondary fragmentation to civilian personnel. A fragmentation hazard is also associated with the HE and Chemical rounds. The DOD default separation distance to protect personnel from hazardous primary fragments resulting from an unplanned detonation of 100 lbs or less of HE is 670 feet for thin skin munitions. The established civilian evacuation zone is 300 meters which exceeds separation requirements. Risk to the civilian population from primary fragmentation is assessed as I-E catastrophic- improbable. Placement of makeshift barricades should restrict and limit the array of random fragments within the immediate area. Houses under construction and standing finished housed should also limit the distribution of low level fragments. Risk to operational personnel outside of the pit is assessed as I- D catastrophic - remote.

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6. SRF SAFETY RECOMMENDATION. In an effort to minimize the number of hazards to the least number of people for the least amount of time, SRF Safety recommends the following:

a. With respect to engineering controls, recommend the local exhaust ventilation system for the pit be installed.

b. With respect to protective clothing, we have considered the TEU Commander's concern with respect to potential increased risk to personnel during handling of possibly armed/fuzed munitions due to a loss of visual acuity while wearing a mask. These concerns were weighed against the fact that TEU personnel are EOD certified while wearing the protective mask. Based on this assessment we have determined that the presence of a significant risk of chemical exposure requires the use of Level C with Saranex/Tyvek suit. This level of protection is contingent upon aggressive monitoring in the pit. If monitoring indicates the area exceeds established AELs, the level of protection would have to be reassessed.

c. With respect to monitoring, recommend the RTAP be used for first entry monitoring for mustard and background real-time low-level monitoring for mustard in the pit. Additionally, the following monitoring should occur:

(1) Background low-level (bubblers) monitoring for Lewisite.

(2) Breathing zone sampling for mustard using DAAMS tubes.

(3) Continuous background sampling for phosgene in the pit.

d. With respect to work areas, recommend three work zones be developed as follows: operating pit, hot line, and public exclusion area.

D. E. Collins

George Collins
SRF Safety

Greg Mason

Greg Mason
SRF Safety

			INJURY POTENTIAL	
		PROTECTIVE CLOTHING TYPE	DERMAL	RESPIRATOR
LOWEST RISK	MODIFIED LEVEL A		II-E	I-E
	LEVEL A		II-E	I-D
	LEVEL B		II-D	I-D
	LEVEL C WITH SARANEX/TYVEK SUIT		II-D	I-D
	LEVEL C		II-C	I-D
	LEVEL D WITH SARANEX/TYVEK SUIT		II-D	I-B
HIGHEST RISK	LEVEL D		II-C	I-B

RISK ASSESSMENT CODE DESCRIPTIONS

HAZARD SEVERITY DESCRIPTIONS:

DESCRIPTION	CATEGORY	MISHAP DEFINITION
CATASTROPHIC	I	DEATH OR SYSTEM LOSS.
CRITICAL	II	SEVERE INJURY, SEVERE OCCUPATIONAL ILLNESS, OR MAJOR SYSTEM DAMAGE.
MARGINAL	III	MINOR INJURY, MINOR OCCUPATIONAL ILLNESS, OR MINOR SYSTEM DAMAGE.
NEGLIGIBLE	IV	LESS THAN MINOR INJURY, OCCUPATIONAL ILLNESS, OR SYSTEM DAMAGE

HAZARD PROBABILITY DESCRIPTIONS:

DESCRIPTION	LEVEL	DEFINITION
FREQUENT	A	LIKELY TO OCCUR FREQUENTLY
PROBABLE	B	WILL OCCUR SEVERAL TIMES
OCCASIONAL	C	LIKELY TO OCCUR SOMETIMES
REMOTE	D	UNLIKELY BUT POSSIBLE TO OCCUR
IMPROBABLE	E	SO UNLIKELY, IT CAN BE ASSUMED OCCURRENCE WILL NOT BE EXPERIENCED

15 January 1993

Potential Airborne Exposure to Lewisite and Mustard During Operation Safe Removal

1. This analysis considers the potential unearthing of liquid Lewisite (L) and mustard (H) during excavation of the chemical munitions disposal pit. It compares the expected airborne vapor concentration from computer models to the accepted exposure limit of 0.003 mg/m³ (both agents).
2. A matrix approach is employed using a range of potential liquid agent amounts, windspeeds, and temperatures. The expected windspeeds for Operation Safe Removal range from calm to 20 mph and the temperatures from 15-55 F. As a first cut four different agent amounts were assumed: 1, 4, 8, and 16 fluid ounces.
3. Note: H freezes at about 58 F (14.5 C). Since its freezing temperature is greater than the expected maximum temperature, agent H would not be expected to produce any vapor challenge during excavation. However, it still presents a potential contact hazard.
4. In using the D2PC model to determine both evaporation rates and downwind dispersion of the evaporating agent, it was determined that very little liquid agent is required to produce an AEL concentration close to the source. For instance, only one fluid ounce of Lewisite (56 grams) exposed to air for five minutes at 15 F is required to produce an AEL at a downwind distance of 20 meters. Model results estimate that as little as 1/4 ounce (14 grams) produces a hazard distance to 10 m.
5. Since the 15 F temperature will likely be exceeded and larger amounts of liquid agent than 1/4 ounce may be uncovered in the pit, airborne concentrations which exceed the AEL for Lewisite could be expected for virtually all weather conditions during Operation Safe Removal.
6. This analysis assumes the purity of the agent to be 100% probably a very conservative assumption given the age of the material. Field concentrations and hazard distances would be lower.
7. It is recommended that Tech Escort strongly consider the use of protective vapor masks during excavation of the pit to prevent potential exposure to Lewisite vapor.


Michael Myrski
Hazard Analysis



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ARBERCEN PROVING GROUND, MARYLAND 21010-8133



REPLY TO
ATTENTION OF

COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

14 Jan 1993

Operation Safe Removal
Verification Plan for Termination of the Emergency Response Phase

1. SITUATION.

a. On 5 January 1993 while digging a trench to connect sewage to a new home, a commercial real estate developer discovered a cache of potentially hazardous explosive and chemical munitions at a formerly used defense site located in the Spring Valley section of Washington, D.C.

b. The Army responded by activating a Service Response Force (SRF) and developed a two phase operation plan to approach the situation.

c. The emergency response phase (Phase I) included removing, testing, packaging, and transporting potentially hazardous munitions from Spring Valley to safe storage locations for safe disposal.

d. The recovery/remediation phase (Phase II) is expected to be accomplished by the U.S. Army Corps of Engineers, Baltimore District and will consist of remedial operations to restore conditions at and in the vicinity of the site to an acceptable environmental state.

c. The purpose of this plan is to establish criteria for verifying termination of the emergency response phase and the beginning of the recovery/remediation phase.

d. Parties involved:

- (1) Service Response Force
- (2) Municipal Authorities of Washington, D.C.
- (3) Emergency Response Team of Region III, EPA
- (4) Baltimore District of the Corps of Engineers
- (5) U.S. Army Environmental Hygiene Agency
- (6) Technical Escort Unit
- (7) Roy F. Weston Environmental Consulting Firm.
- (8) Edgewood Research, Development, Engineering Center
- (9) Dept of Health and Human Services (HHS)
- (10) Dept of Labor Occupational Safety & Health Admin.

2. MISSION. During the emergency response phase, the SRF is responsible for taking those actions necessary to control the site, reduce imminent risk, ensure health and safety, contain and render safe hazardous materials, protect the environment, and promote public confidence in the emergency response operations. Concurrent with removal actions, the SRF will obtain a representative body of reliable information to describe the risk and its effects on the environment.

a. Concept of Operations. The SRF personnel will take necessary actions to recover, package, and remove exposed potentially explosive or chemically hazardous munitions or debris. Monitoring personnel, by taking air, water, and soil samples, will collect, analyze, and report potential contamination information to assure safety of the recovery operations and to serve as the basis for verifying the absence of imminent risk.

b. Criteria for termination of the Emergency Response Phase. The emergency response phase will continue until the SRF Commander has determined that the threat of imminent risk has been eliminated. The following criteria, if met, will help to establish that the emergency response phase may be concluded when:

(1) All liquid or solid filled munitions and other objects or debris located in the suspected disposal pit which are also suspected to contain or be contaminated by chemical agents are removed, containerized, and rendered safe for transportation.

(2) All of the above liquid and solid filled munitions and material are removed from the Spring Valley residential area.

(3) The SRF Commander determines that the soil in, removed from, and immediately surrounding the excavated area poses no imminent risk of harm. At least 14 soil samples shall be taken and shall be tested for substances listed below. A determination that the soil poses no risk of imminent harm shall not be made unless test results reflect less than the following levels:

Mustard	0.06	mg/gram of soil
Lewisite	0.06	mg/gram of soil
Adamsite	2.6	mg/gram of soil
Arsenic	0.097	mg/gram of soil
Chloroacetophenone (CN)	1.57	mg/gram of soil
Cyanogen Chloride	3.12	mg/gram of soil
Chloropicrin	3.5	mg/gram of soil
Phosgene	2.07	mg/gram of soil
Mercury	1.6	mg/gram of soil
Lead	0.50	mg/gram of soil
Chromium VI	3.9	mg/gram of soil

(or to soil baseline level)

c. The Commander, Service Response Force and On Scene Coordinator will:

(1) Develop criteria for verifying the termination of the emergency phase.

(2) Complete the actions and conduct the sampling required.

(3) Determine, in coordination with local and federal agencies, when criteria have been met.

(4) Coordinate with the Baltimore District, Corps of Engineers to assure a smooth transition to Phase II.

d. The Deputy On-Scene Coordinator will:

(1) Coordinate the results with local and federal authorities to verify the absence of imminent risk.

(2) Host a transition information exchange meeting between key personnel from Phase I, Phase II, Federal, Civil and Local authorities prior to the conclusion of Phase I.

e. The Commander of the Baltimore District will:

(1) Be prepare to initiate Phase II activities.

(2) Coordinate with the Service Response Force to assure a smooth transition.

4. SERVICE SUPPORT

a. The U.S. Army Environmental Hygiene Agency will evaluate the overall situation and develop a constituent list, maximum constituent level, and sampling strategy for verifying the absence of imminent risk in the soil.

b. The Emergency Response Team of EPA Region III will oversee the sampling program.

c. The Edgewood Research, Development and Engineering Center will conduct air space monitoring to assure the absence of chemical surety material and thereby protect laboratory employees from accidental exposure to chemical warfare agents.

d. The Edgewood Research, Development, and Engineering Center will conduct laboratory analysis for mustard, lewisite, and total arsenicals.

e. The U.S. Army Environmental Hygiene Agency will conduct laboratory analysis for chloracetophenone, cyanogen chloride, chloropicrin, and phosgene. This laboratory will also conduct total metals and semivolatiles on approximately 20% of the samples.

f. Roy F. Weston Laboratories will conduct analysis for total metals and base, neutrals and acids (BNA) (equivalent to semivolatiles) in split samples which duplicate those cited in paragraphs d and e above.

g. The Service Response Force will provide the Baltimore District with the following:

- (1) A detailed list of recovered munitions.
- (2) The data acquired during soil sampling.
- (3) Fact sheets concerning the potential contaminants.
- (4) A roster of Spring Valley residents by name and address.
- (5) Copies of topographic and archeological products as required.
- (6) Other data as required.

5. COMMAND AND CONTROL.

a. Management of the sampling program will be accomplished by the Service Response Force HQ during the emergency phase.

b. Management of subsequent sampling will be accomplished by the agency responsible for optimization of the remediation phase.

c. This action is being coordinated with Baltimore District, Corps of Engineers.



G. E. FRIEL
BG, USA
Commander
Service Response Force

25 Jan 1993

OPERATION "SAFE REMOVAL"
Soil Sampling Plan

1. SITUATION.

a. On 5 January 1993, while digging the trench to make the sewerage connection to a home under construction, a commercial real estate developer discovered a cache of potentially hazardous explosive and chemical munitions at a formerly used defense site located in the Spring Valley subdivision of Washington, DC.

b. Before the termination of the Emergency Response Phase, it is important to assure that the soil excavated from the pit during recovery operations does not pose an imminent threat to the residents of Spring Valley.

2. PURPOSE.

a. The primary purpose of this sampling plan is to develop sufficient analytical data to:

(1) Assure the safety of soil removed from the pit

(2) Assure that potential contamination has not been spread beyond the pit and the pile inadvertently during the recovery operation.

(3) Determine the naturally occurring background levels of metals in the soil to assure perspective during subsequent interpretation of data.

b. Another important purpose of this sampling plan is to develop trust and confidence in the data by:

(1) Having EPA oversee sample collection to assure the absence of bias.

(2) Having EPA analyze split samples for total metals and BNA (semivolatiles) and other site-related contaminants, at their discretion, to assure analytical accuracy.

3. SAMPLE MANAGEMENT.

a. Sampling Pattern.

(1) Locations.

(a) Primary Locations. In order to assure the safety of soil removed from the pit, samples shall be collected from the following:

1. Munitions pit (walls and floor)
2. Soil pile (sides and top)

(b) Lateral Locations. In order to assure that potential contamination has not been spread beyond the pit and pile, samples shall be collected from two heavily used locations and from several nearby water sources:

1. X-Ray tent
2. Decon tent
3. Surface streams
4. Dalecarlia reservoir
5. Nearby monitoring well

(c) Background Locations. In order to determine the background levels of naturally occurring metals in the soil, samples, from both surface and depth, shall be collected from the following locations:

1. Open areas astride 52d Place
2. Open areas near the reservoir

(2) Frequencies. Some samples shall be collected daily; others shall be collected weekly; still others shall be collected once. Specific frequencies are as follows:

(a) Munitions Pit. Samples shall be collected once per day immediately after first entry monitoring has verified the safety of the site each morning.

(b) Soil Pile. Samples shall be collected once per day immediately after first entry monitoring has verified the safety of the site each morning.

(c) X-Ray Tent. Samples shall be collected once per week at the discretion of EPA representatives.

(d) Decon Tent. Samples shall be collected once per week at the discretion of EPA representatives.

(e) Surface Streams. Samples shall be collected once from each of the nearby streams at the discretion of EPA representatives.

(f) Surface Reservoir. Samples shall be collected once from the nearby surface reservoir at the discretion of EPA representative.

(g) Monitoring Well. Samples shall be collected once from a nearby monitoring well at the discretion of EPA representatives.

(h) Open Areas near 52d Place. Samples shall be collected as directed by the EPA representatives.

(i) Open area near the reservoir. Samples shall be collected as directed by the EPA representatives.

(3) Number. Recognizing that the primary purpose of sampling is to assure the safety of the soil removed from the pit, a total of at least 14 samples shall be collected from the pit and pile. To assure the absence of spread, at least 5 samples shall be collected from the vicinities of the X-Ray and Decon Tents. In addition, at least 5 samples shall be taken from the various water sources in the immediate area. To assure adequate background data, at least 12 samples shall be collected from the various background sampling locations. The totals are as follows:

(a)	<u>Munitions Pit</u> .	2/day X 10 days.....	20
(b)	<u>Soil Pit</u> .	2/day X 10 days.....	20
(c)	<u>X-Ray Tent</u> .	1/week X 3 weeks.....	3
(d)	<u>Decon Tent</u> .	1/week X 3 weeks.....	3
(e)	<u>Surface Streams</u> .	2 samples.....	2
(f)	<u>Reservoir</u> .	1 sample.....	1
(g)	<u>Monitoring Well</u> .	1 sample.....	1
(h)	<u>Near 52d Place</u> .	9 samples.....	9
(g)	<u>Near Reservoir</u> .	1 sample.....	1
		At least.....	60

(4) Type. The specific type of sample varies with the media to be sampled as follows:

- (a) Soil Samples. All shall be composite samples.
- (b) Water Samples. All shall be grab samples.

b. Sample Collection.

(1) Volume/Containerization.

(a) Soil samples. Soil samples shall be collected initially in 32 ounce glass jars, from which they shall be then transferred to a plastic bag for mixing to assure homogeneity, from which they shall be then transferred to two 8 ounce glass jars (which are teflon sealed) and two 40ml VOA vials (which are teflon sealed) for transport to laboratories.

(b) Water samples. Each water sample shall be collected in two 1 liter plastic bottles plus two 80 ounce amber glass bottles.

(2) Preservatives.

(a) Soil samples. Samples require no special preservatives, but shall be iced until shipped.

(b) Water samples. Water samples in the 1 liter bottles shall be preserved with Nitric acid. Preservatives are not required in the amber jars. However, they shall be iced until shipped.

(3) Identification.

(a) Soil samples. A unique identification number shall be assigned to each sample by the EPA representatives.

(b) Water samples. A unique identification number shall be assigned to each sample by the EPA representatives.

c. Sample Shipment

(1) Safety.

(a) Army Samples. Soil samples shall first be sent to Edgewood Research, Development, and Engineering Center (ERDEC) on Aberdeen Proving Ground, MD, for analysis of air space (above the soil in the container) to protect laboratory workers by assuring the absence of mustard agent. After verification of safety, the samples shall be forwarded to the ERDEC laboratory and to the Army Environmental Hygiene Agency laboratory which is also located on Aberdeen Proving Ground.

(b) EPA Samples. Soil samples destined for EPA laboratories shall be held until the air space has been verified by ERDEC, and then shipped to the EPA contract laboratory.

(2) Custody. All chain of custody documentation shall be secured to the inside lid of the cooler. Custody seals may be placed across the lid closure, as appropriate.

d. Sample Processing

(1) Splitting.

a. Soil samples. Soil samples shall be split immediately after collection, thereby permitting concurrent analysis by the EPA contract laboratory, ERDEC, and USAEHA.

b. Water samples Water samples had already been collected prior to the preparation of this plan and, therefore, were processed by the EPA contract laboratory only. Subsequent water samples shall be split to permit concurrent processing by Army laboratories.

4. ANALYTICAL MANAGEMENT.

a. Constituents.

(1) Soil Samples. The constituents measured by each laboratory shall be as follows:

(a) EPA Contract Lab

1. BNA (semivolatiles) (see Appendix A)
2. Total metals (see Appendix B)
3. Other site-related contaminates

(b) Edgewood Research Development Engineering Ctr

1. Mustard
2. Extractable Arsenic
3. Total arsenic

(c) U.S. Army Environmental Hygiene Agency

1. Chloroacetophenone
2. Cyanogen chloride
3. Chloropicrin
4. Phosgene
5. Arsenic
6. Mercury
7. Lead
8. Chromium
9. Semivolatiles (BNA)
10. Other Total Metals
11. Explosive Compounds

(2) Water Samples. The constituents measured by the EPA contract laboratory are as follows:

(a) EPA Contract Lab

1. BNA (see Appendix A) (EPA Method 8250/70)
2. Total Metals (see Appendix B) (CLP Method)

b. Quality Assurance

(1) Certification.

(a) EPA Laboratory, Roy F. Weston, has been contracted by the Environmental Protection Agency and meets their quality assurance prerequisites.

(b) Edgewood Research, Development and Engineering Center is recognized as one of the best laboratories for analyzing mustard, lewisite, and adamsite.

(c) U.S. Army Environmental Hygiene Agency has been accredited/certified by:

American Industrial Hygiene Association
American Association for Laboratory Accreditation
National Institute of Standards and Technology/
National Voluntary Laboratory Accreditation Program

States of:

Alabama	New Hampshire
Arizona	New Jersey
California	New Mexico
Delaware	Pennsylvania
Georgia	Rhode Island
Idaho	Tennessee
Iowa	Utah
Kansas	Virginia
Maine	Washington
Michigan	

Environmental Protection Agency:

Region III	Philadelphia, PA
Region V	Chicago, IL
Region VI	Dallas, TX
Region VII	Kansas City, MO
EPA Environmental Monitoring Soils Laboratory, Las Vegas, Nevada	

Other Activities:

Participation in NIST/NAVLAP's
Soil Measurement Proficiency Program

(2) Split Samples. Soil samples shall be split by EPA representatives after collection to permit corroboration of results.

(3) Laboratory Practice. All laboratories shall continue to perform QA/QC procedures in accordance with good laboratory practice.

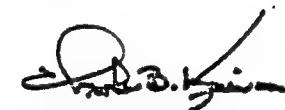
c. Data Evaluation.

(1) Comparison with Criteria. Concentrations of arsenic, mercury, lead, and chromium in the soil from the pit and pile shall be compared to the verification of emergency recovery phase termination criteria using a comparison of the pit/pile sample mean concentration with the established above criteria using a one-tailed t test at the 95% confidence interval in accordance with the EPA guidance provided in Soil Sampling Quality Assurance User's Guide, 2ed, EPA 600/8-89/046.

(2) Comparison with Background. In the event that the site soil arsenic or other metal concentrations exceed the emergency response phase termination criteria, the pit/pile mean concentrations shall be compared to the mean background concentrations using a one-tailed t test at the 95% confidence interval in accordance with the above reference.

GEORGE E. FRIEL
BG, USA
Commander
Service Response Force

OFFICIAL:



CHARLES B. KENISON
COL, MS
Director, Special Staff

APPROVED:



TERRY A. STILMAN
Federal On-Scene Coordinator
EPA Region III

BASE NEUTRAL AND CHIROPATIERS (CONT'D) ON CEDAR VINES
TEST OR CUP TEST

BASE NEUTRAL AND CHIROPATIERS (CONT'D) ON CEDAR VINES
TEST OR CUP TEST

FL. NO.	NAME	NAME
1-2-CHLOROETHYL ETHER	ACETOPHENONE	3-NITROBENZENE
2-CHLOROPHENOL	2,4-DINITROBENZOL	2-BROMOETHYL ETHER
1,2-DICHLOROETHANE	4-NITROANISOLE	2-OXIDONAPHTHOL
1,4-DICHLOROBENZENE	DIBENZOPHENON	1,2-DIOCHLOROBENZENE
BUTYL ALCOHOL	2,4-DINITROQUINONE	1,4-DIBROMOBENZENE
1,2-DICHLORODISULFIDE	DEBTALPHATHALATE	1,2-DIBROMOETHANE
2-CHLORINATED	4-CHLOROBENZYL-PHENYL ETHER	2-METHYLPHENOL
2-CHLORINATED	FLUORENE	2-NITROBENZYL-PHENYL ETHER
2,2-CHLORODIPOXYL ETHER	4-HEXADECANE	4-CYCLODODECANYL-PHENYL ETHER
4-CHLOROPHENOL	H-IMPROPO-2-METHYLPHENOL	FLUORENE
H-IMPROPO-2-METHYLPHENOL	H-IMPROPO-2-METHYLPHENOL	4-IMIDAZOLE
HEXADECYLPHENOL	H-NITROBENZYL-PHENYL ETHER	4-O-CHLOROBENZOIC ACID
NITROBENZENE	4-NITROBENZYL-PHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
ISOPROPENE	4-CHLOROPHENYL-PHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
2-WITHINOL	HEXADECYL-PHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
2,4-ELEMENYL-PHENOL	PENTADECYL-PHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
ELEMENOIC ACID	PHENYL-PHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
682-CHLOROETHYL METHANE	AMINOCYCLOPENTANE	4-O-CHLOROBENZYL-PHENYL ETHER
2,4-DICHLOROPHENOL	DI-H-BUTYLPHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
1,2,4-TRICHLOROBENZENE	FLUOROMETHANE	4-O-CHLOROBENZYL-PHENYL ETHER
NAPHTHALENE	PTFE	4-O-CHLOROBENZYL-PHENYL ETHER
4-CHLOROBENZENE	BUTYL-BENZYLPHENYL ETHER	4-O-CHLOROBENZYL-PHENYL ETHER
HEXADECYLPHENOL	4,4-DICHLOROBENZENE	4-O-CHLOROBENZYL-PHENYL ETHER
4-CHLOROPHENOL	4,4-DICHLOROBENZENE	4-O-CHLOROBENZYL-PHENYL ETHER
2-METHYLPHENOL	CHARTREUSE	4-O-CHLOROBENZYL-PHENYL ETHER
2-METHYLPHENOL	CHARTREUSE	4-O-CHLOROBENZYL-PHENYL ETHER
HEXADECYLPHENOL	CHARTREUSE	4-O-CHLOROBENZYL-PHENYL ETHER
2,4,4-TRICHLOROPHENOL	DI-OCTYLPHENYL ETHER	2-CHLOROBENZENE
2,4,6-TRICHLOROPHENOL	DIODOPHENYL ETHER	DI-OCTYLPHENYL ETHER
2-CHLOROPHENOL	BENZODIOPHENYL ETHER	DIODOPHENYL ETHER
2-NITROBENZENE	BENZOPHENONE	DIODOPHENYL ETHER
2-NITROBENZENE	INDIGOTIOL-2,5-OXYBENZENE	DIODOPHENYL ETHER
2-NITROBENZYLPHENOL	2,2-DINITROBENZENE	DIODOPHENYL ETHER
ACETYLPHENOL	2,2-DINITROBENZENE	DIODOPHENYL ETHER
2,5-DINITROTOLUENE		DIODOPHENYL ETHER

Aluminum	Antimony
Antimony	Arsenic *
Arsenic *	Beryllium
Barium *	Cadmium *
Beryllium	Chromium *
Cadmium *	Copper
Calcium	Lead *
Chromium *	Mercury *
Cobalt	Nickel
Copper	Selenium *
Iron	Silver *
Lead *	Thallium
Magnesium	Zinc
Manganese	
Mercury *	
Nickel	
Potassium	
Selenium *	
Silver *	
Sodium	
Thallium	
Vanadium	
Zinc	

CLP - Classification of Chemicals

CLP - Contract Laboratory Program
HSLC - Hazardous Substance List

PP - Priority Pollutant
SRWA - Safe Water Drinking Act

28 Jan 93

OPERATION "SAFE REMOVAL"
Soil Sampling Plan Amendment B

1. SITUATION

During site operations surface water sources (rain water, water used during decontamination procedures and run-off from DC Fire Department equipment) have provided a possible pathway for the transport of contamination off-site. Surface water from these events is collected into a storm sewer which empties into an un-named creek, 1/4 mile north of the site.

Before the termination of Operation "Safe Removal", it is important to assure that no contaminants have migrated offsite and pose a potential threat to human health and the environment.

2. PURPOSE

The primary purpose of this sampling plan amendment is to assure no site contaminants have migrated offsite. Samples shall be analyzed for the same parameters mentioned in the Operation "Safe Removal" Soil Sampling Plan Section 4.a(1)(a) by EPA contract laboratory only.

3. SAMPLE MANAGEMENT

A. Locations

In order to assure that contaminants have not migrated offsite via storm sewer system, samples shall be collected at or near the point of discharge into the creek.

B. Frequency Of Collection

Samples shall be collected only once.

C. Sampling Procedures

Two types of samples shall be collected from the creek. The first type of samples shall be water samples. Water shall be collected in a 1 liter high density polyethylene (HDPE) bottle and in three 32-ounce glass, amber jugs. The sample collected in the HDPE bottle shall be preserved with nitric acid at a pH level of 2 or less.

The second type of samples shall be a creek sediment sample. Creek sediment shall be collected in an 8-ounce glass jar using a disposable plastic scoop.

All samples mentioned in this amendment shall be ~~iced~~.

A unique identification number shall be assigned each mentioned sample by the EPA representatives.



DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

28 Jan 1993

MEMORANDUM FOR Commander, U. S. Army Chemical Materiel Destruction Agency, ATTN: SFIL-NSP, Aberdeen Proving Ground, MD 21010-5401

SUBJECT: Approval of Transportation Plan for Shipment of Liquid Filled Rounds for Sampling at the Edgewood RD&E Center, Edgewood Area, APG, MD, dated 15 Jan 1993

1. The attached Transportation Plan was written, accepted and used for the mission, CBDA-93-02, which was transported on 16 Jan 1993.
2. We propose to use this plan to ship a second set of samples to the Edgewood RD&E Center, upon approval of the Department of Health and Human Services.
3. The next shipment to Edgewood RD&E is scheduled for 29 Jan 1993.

1 Encl
as

Kenneth R. Boyd
KENNETH R. BOYD
Director, Operations

15 Jan 1993

Transportation and Sampling Plan - Liquid Filled Rounds for Sampling at the Edgewood RD&E Center, Edgewood Area, APG, MD

1. Situation

a. Various liquid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in special containers and shipped to an appropriate military installation for storage until final disposition can be accomplished.

b. Once the imminent hazard is removed, the site will be turned over to the control of the Army Corps of Engineers for further evaluation and remediation.

c. In order to provide information pertinent to the follow-on site evaluation and remediation, and to provide information to the agencies involved concerning the contents of the recovered rounds, three recovered rounds will be sampled and analyzed to determine the contents.

d. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Edgewood Research Development Engineering Center
- (3) Maryland Department of the Environment
- (4) Aberdeen Proving Ground
- (5) Dept of Health & Human Services
- (6) Department of Transportation
- (7) Washington DC Police
- (8) Washington DC Fire Department

2. Mission. Safely move three representative rounds from Spring Valley to the Edgewood Research, Development & Engineering Center (ERDEC) which is located at Aberdeen Proving Ground. Obtain a sample from each round and analyze each sample to characterize contents. Properly manage any resulting waste.

3. EXECUTION

a. Concept of movement. Three liquid filled rounds, typical of each of the type of the rounds recovered during Operation Safe Removal, will be transported to APG under the control of the Technical Escort Unit and sampled and analyzed by the Operations Directorate, ERDEC. Disposition of the fill and round will be determined based on the results of the analyses.

(1) The movement, sampling, analysis, and ultimate disposal will be conducted in a manner so as to minimize the risk to the workers, the public, and the environment.

(2) A technical escort officer (TEU) will be responsible for the custody, safety, and security of the material during the movement. The technical escort officer will be assisted by one other escort person.

(3) The sampling and analysis will be conducted by ERDEC personnel in accordance with approved SOP(s).

b. Phase A - Spring Valley to APG

(1) Packaging.

(a) Containerization. Liquid filled rounds will be packaged and certified in accordance with DOT requirements for air shipment.

(b) Configuration. Securing of the load within the aircraft will be in accordance with FAA requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Department of the Army pilots.

(3) Flight plan. The aircraft will fly along established air corridors, to the maximum extent possible, to avoid populated areas. The specified route is as follows: from Spring Valley directly to Clara Barton Parkway, then north following Clara Barton Parkway to I-495, then east following I-495 to route I-95, then south following I-95 to route 295, Northeast along route 295 to the intersection of route 295 and route 32, from this point the aircraft will fly essentially a straight line, over BWI airport direct to Waide AAF, APG (EA), MD. See Appendix A.

(4) Contingency Planning. A chase helicopter will fly with the load carrying helicopter. The chase helicopter will carry three USA Technical Escort Unit personnel trained in emergency response. The personnel will carry with them absorbent material, plastic, bleach and water.

c. Phase B - Receipt at ERDEC, APG

(1) Movement at ERDEC. Items will be moved by ground vehicle from Waide AAF to the Chemical Transfer Facility (CTF), Bldg E3232.

(2) Security. Special security will be provided by the technical escort team accompanying the shipment in the chase helicopter until the shipment is transferred to the ERDEC personnel at the CTF.

(3) Fire. Fire support will be provided by Aberdeen Proving Ground.

(4) Medical. Medical support will be provided by Aberdeen Proving Ground.

(5) EOD. EOD support will be provided by the Technical Escort Unit. These people are specially trained in both explosive handling and chemical decontamination techniques.

d. Phase C - Sampling, Analysis, and Disposition of Items at APG.

(1) Upon arrival at APG, each round will undergo initial analysis utilizing Portable Isotopic Neutron Spectroscopy, a non-invasive detection method.

(2) Each round will be cooled in a refrigerator to reduce the vapor pressure of the fill.

(3) The round will be placed in the CHATS and a hole will be drilled in it.

(4) A liquid sample will be drawn and sent to the lab for analysis.

(5) The remainder of the fill will be transferred into DOT cans.

(6) The empty munition will be decontaminated, bagged, and bubbled.

(7) Ultimate disposition of the empty munition and the fill will be determined based in the results of the analysis.

4. Service Support.

a. Regulatory Approvals.

(1) The State of Maryland will have granted approval of this action.

(2) The Army has obtained a generators identification number from the District of Columbia to assure full accountability for items recovered during removal operations.

(3) The CBDA obtained DOT approval for the adequacy of their special single round containers for air shipment.

b. General Support.

(1) Security at Spring Valley. Washington DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington DC

has provided excellent support during the hours of recovery operations.

(3) Medical Support at Spring Valley. Washington DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure. Rotary Wing aircraft. The Army will use two UH-1 aircraft for the flight because of their ability to land safely despite engine failure. If such an event should occur, the chase helicopter will land near the downed aircraft, will offer life saving, decontamination or other emergency service and will secure the site until military response units arrive. Technicians riding in the chase helicopter are trained in emergency procedures.

(2) Aircraft Fire. The escorts aboard the load carrying helicopter are trained in fire fighting as well as emergency decontamination enroute.

(3) Container leak. It is highly unlikely that the packaging containers will leak. All munitions are surrounded in absorbent material within special containers, and configured for maximum safety. All have been tested in accordance with DOT standards and have been used without problems. In the unlikely event of a leak the escort technicians riding with the cargo aircraft are trained in decontamination procedures and will be able to control the situation until the aircraft can land.

5. Command and Signal.

a. Phase A - Spring Valley to APG. During the movement, command and control will be provided by the SRF Headquarters at Spring Valley.

b. Phase B - Receipt at ERDEC, APG. Command and control will be provided by ERDEC Emergency Operations Center.

c. Phase C - Sampling, Analysis, and Disposition at ERDEC. During sampling, analysis, and disposition at ERDEC, command and control will be provided by the ERDEC Emergency Operations Center.

Operation Safe Removal

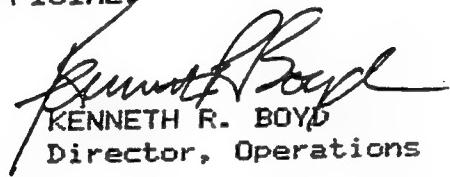
15 Jan 1993

Transportation and Sampling Plan - Liquid Filled Rounds for
Sampling at the Edgewood RD&E Center, Edgewood Area, APG, MD

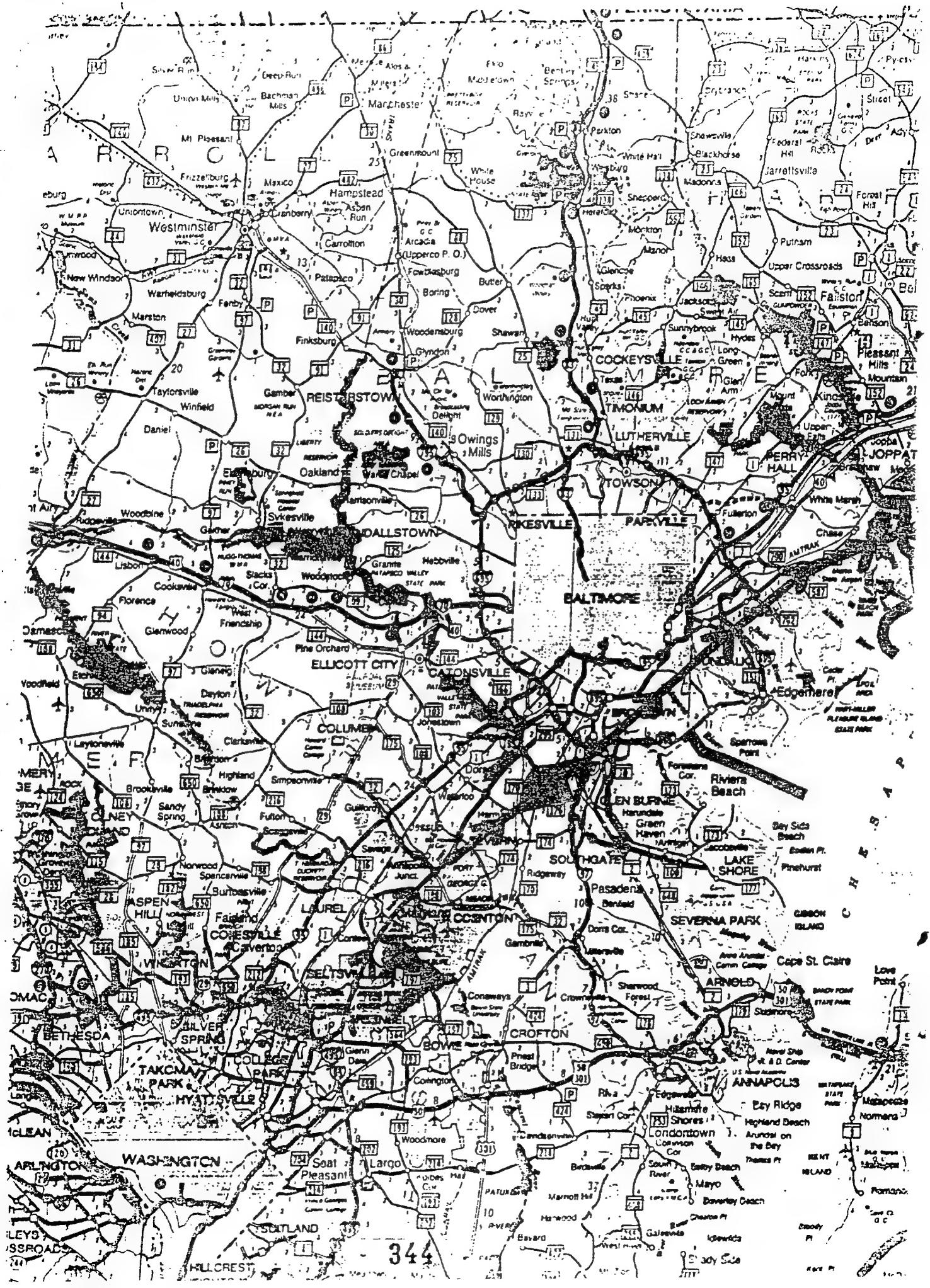


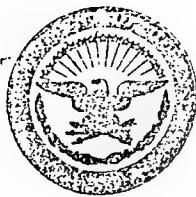
GEORGE E. FRIESEL
BG, USA
Commander,
Service Response Force

OFFICIAL:



KENNETH R. BOYD
Director, Operations





DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



REPLY TO
ATTENTION OF COMMANDER, OPERATION SAFE REMOVAL SERVICE RESPONSE FORCE

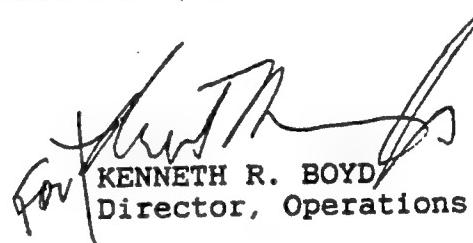
28 Jan 1992

MEMORANDUM FOR Commander, U. S. Army Chemical Materiel Destruction Agency, ATTN: SFIL-NSP, Aberdeen Proving Ground, MD 21010-5401

Subject: Approval of Transportation Plan for Shipment of Liquid Filled Rounds, dated 25 Jan 1993

1. The attached Transportation Plan was written, accepted and used for the mission, CBDA-03, which was transported on 27-28 January 1993.
2. We propose to use this plan for the next move to Pine Bluff Arsenal, upon receipt of Department of Health and Human Services approval.
3. The next shipment to Pine Bluff Arsenal is scheduled for 29-30 Jan 1993.

1 Encl
as


for KENNETH R. BOYD
Director, Operations

Operation Safe Removal
Transportation Plan - Liquid Filled Rounds

25 January 1993

This plan supercedes plan dated 15 January 1993.

1. SITUATION

a. Various liquid filled munitions are being recovered from the construction site at Spring Valley. As they are recovered, they are packaged in special containers which meet DOT requirements for air shipment.

b. The rounds must be sent to an appropriate military installation for storage until final disposition can be accomplished.

c. Agencies Involved.

- (1) U.S. Army Technical Escort Unit
- (2) Military District of Washington
- (3) Pine Bluff Arsenal
- (4) U.S. Army Armament Munitions & Chemical Command
- (5) Edgewood Research Development Engineering Center
- (6) Dept of Health & Human Services
- (7) Department of Transportation

2. MISSION. To safely and expeditiously move suspect liquid filled rounds from the Spring Valley site from which they were recovered to Pine Bluff Arsenal, AR.

3. EXECUTION

a. Concept of movement. Liquid filled rounds will be moved by air in accordance with Department of Transportation (DOT) requirements under the control of the Technical Escort Unit to a transshipment site (Andrews Air Force Base) and ultimately to Pine Bluff Arsenal.

(1) The movement will be conducted in a manner so as to minimize the risk to the workers, the public and the environment.

(2) An Arkansas hazardous waste manifest will be used to document movement of the waste from Spring Valley to Pine Bluff Arsenal.

(3) A technical escort officer (TEO) will be responsible for the custody, safety, and security of the material during the movement. The technical escort officer will be assisted by a minimum of one other escort person.

b. Phase A - Spring Valley to Transshipment Site.

(1) Packaging.

(a) Containerization. Liquid filled rounds will be packaged and certified in accordance with DOT requirements for air shipment.

(b) Configuration. Securing of the load within the aircraft will be in accordance with FAA requirements.

(2) Transportation. Transportation will be by Army rotary wing aircraft operated by Army pilots.

(3) Flight plan. The aircraft will fly using established Washington, D.C. air corridors to avoid populated areas to the maximum degree possible. The precise route is as follows: from Spring Valley directly to Clara Barton Parkway, then north following Clara Barton parkway to I-495, then east following I-495 to I-95, then south follow following I-95 to route 50; then south and west along route 50 to the junction of route 50 and Landover Road, then south to the Andrews AFB strip. See Appendix A.

(4) Documentation. An Arkansas hazardous waste manifest must be prepared prior to shipment.

(5) Contingency Planning. A chase helicopter will fly with the load carrying helicopter. The chase helicopter will carry three USA Technical Escort personnel trained in emergency response. The personnel will carry with them absorbent material, plastic sheeting, bleach and water.

c. Phase B - Holding/Transfer at Transshipment Site

(1) Security. Special security will be provided by the technical team accompanying the shipment in the escort helicopter. General security will be provided by Andrews AFB security personnel.

(2) Fire. Fire support will be provided by Andrews AFB. It will be in a standby mode during landing loading and takeoff.

(3) Medical. Medical support will also be provided by Andrews AFB. It will be a standby mode during landing loading and takeoff.

(4) EOD. EOD Support will be provided by the Technical Escort Unit. These people are specially trained in both explosive and decontamination techniques.

d. Phase C - Transshipment Site to Grider Field Pine Bluff, Arkansas.

(1) Transportation. Transportation will be by C23 Army aircraft operated by Army pilots.

(2) Flight path. Although the precise route may very because of weather, the proposed route is as follows: from Andrews AFB, MD to Pope AFB, NC, then to Redstone Arsenal, AL and then to Pine Bluff, Arkansas.

(3) Support Enroute.

a. Both Pope AFB and Redstone Arsenal have contingency plans for decontamination should problems occur. In addition escort personnel aboard the aircraft have been trained in explosive and decontamination procedures.

b. Select Army and Air Force installations along the route of flight have been alerted and told to have teams ready to respond should an accident occur in their area of responsibility.

e. Phase D - Grider Field to Pine Bluff Arsenal

(1) Transportation. Transportation will be by Army rotary wing aircraft operated by Army pilots. In addition to the load carrying aircraft there will be a chase aircraft with technical and security personnel.

(2) Flight path. The aircraft will fly directly from Grider Field to Pine Bluff Arsenal avoiding population concentrations.

(3) Security. Security onsite will be provided by municipal authorities in conjunction with Pine Bluff Arsenal security personnel.

(4) Fire. Fire support will be provided by Grider airfield. It will be on standby during landing loading and takeoff.

(5) Decontamination. Escort personnel are trained in decontamination procedures.

(6) Medical. Medical support will be provided via airfield, community and Pine Bluff Arsenal resources.

f. Phase E - Receipt at Pine Bluff Arsenal.

(1) Security. Security will be provided by Arsenal personnel.

(2) Authorization. The PBA RCRA permit was modified to allow storage of the specific materials taken from the Spring Valley site.

(3) Storage. Items will be stored in permitted hazardous waste storage facilities.

(4) Documentation. Hazardous waste manifest will be annotated to assure accountability.

4. Service Support.

a. Regulatory Approvals.

(1) PBA Permit Modification. Pine Bluff Arsenal modified their RCRA permit in order to accommodate the storage of these items.

(2) The Army obtained a generator's identification number from the District of Columbia to assure full accountability for items recovered during removal operations.

(3) The CBDA obtained DOT approval for the adequacy of their special single round containers for air shipment.

b. General Support.

(1) Security at Spring Valley. Washington, DC has provided round the clock security at the site.

(2) Fire support at Spring Valley. Washington, DC has provided excellent support during the hours of recovery operation.

(3) Medical Support at Spring Valley. Washington, DC has provided excellent Emergency Medical Service during hours of recovery operations.

c. Emergencies and Contingencies.

(1) Aircraft Failure.

a. Rotary wing aircraft. The Army will use UH-1 and/or CH-47 aircraft for the short flights in populated areas especially Washington DC, because of their ability to land safely despite engine failure. If such an event should occur the escort helicopter will land near the downed aircraft will offer life saving decontamination or other emergency service and will secure the site until military response units arrive. Technicians riding in the escort heicoppter are trained in emergency procedures.

b. Fixed wing aircraft. The Army will use either C-23 or C-130 aircraft for long distance flights. The C-23 will be used as the aircraft of choice because of their exceptional safety record. There has never been an operational mishap associated with this aircraft since it was acquired by the the military services. Both planes have multiple engines thereby allowing them to reach a nearby airfield in the event of engine failure. However if a mishap were to occur response forces would

be sent from the nearest military installation.

(1) The following ordnance detachments along the route have been alerted:

149th Detachment....Andrews AFB
18th Detachment.....Ft Bragg
142nd Detachment....Ft McClellan

(2) The following military installations have been alerted to respond to an accident occurring in their area of responsibility:

Andrews AFB, MD
Ft Lee, VA
Pope AFB, NC
Ft Jackson, NC
Ft McClellan, AL
Redstone Arsenal, AL
Columbus AFB, MS
Pine Bluff Arsenal, AR

(3) Response and medical teams at all transient and destination airfields will be in a high state of readiness from 30 minutes prior to aircraft arrival until 30 minutes after aircraft departure from their location. (NOTE: Response capability can stand down at RON airfields after aircraft is secure for the night until 30 minutes prior to departure time the next morning.)

(2) Aircraft Fire. The escorts aboard the load carrying helicopter and aircraft are trained in firefighting as well as emergency decontamination enflight.

(3) Container leak. It is highly unlikely that packaging containers will leak. All munitions are surrounded in absorbant material within special containers and configured for maximum safety. All have been tested in accordance with DOT standards and have been used without problems. In the unlikely event of a leak the escort technicians riding with the cargo aircraft are trained in decontamination procedures and will be able to control the situation until the aircraft can land.

5. Command and Signal.

a. Phase A - Spring Valley to Transshipment Site. During the initial movement command and control will be provided by the SRF Headquarters at Spring Valley.

b. Phase B - Holding/Transfer at Andrews AFB. Command and control will be provided by SRF Headquarters at Spring Valley.

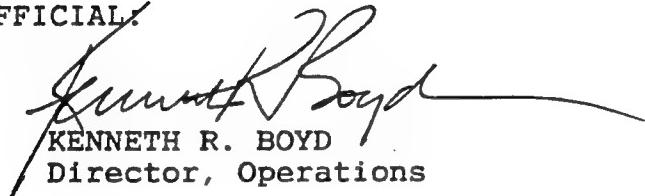
c. Phase C -- Transshipment Site to Grider Field Pine Bluff, AR. During shipment to Pine Bluff command and control will be provided by air traffic controllers enroute. In addition progress will be monitored by the SRF.

d. Phase D - Grider Field to Pine Bluff Arsenal. During the shipment from Grider Field to PBA command and control will be provided by PBA EOC. Progress will be monitored by the SRF.

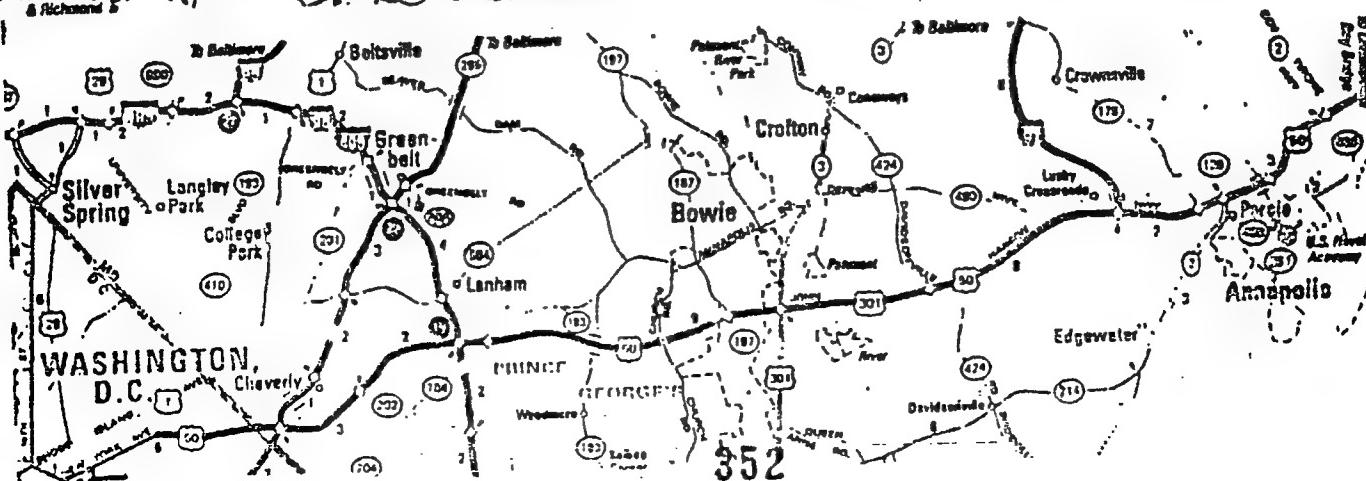
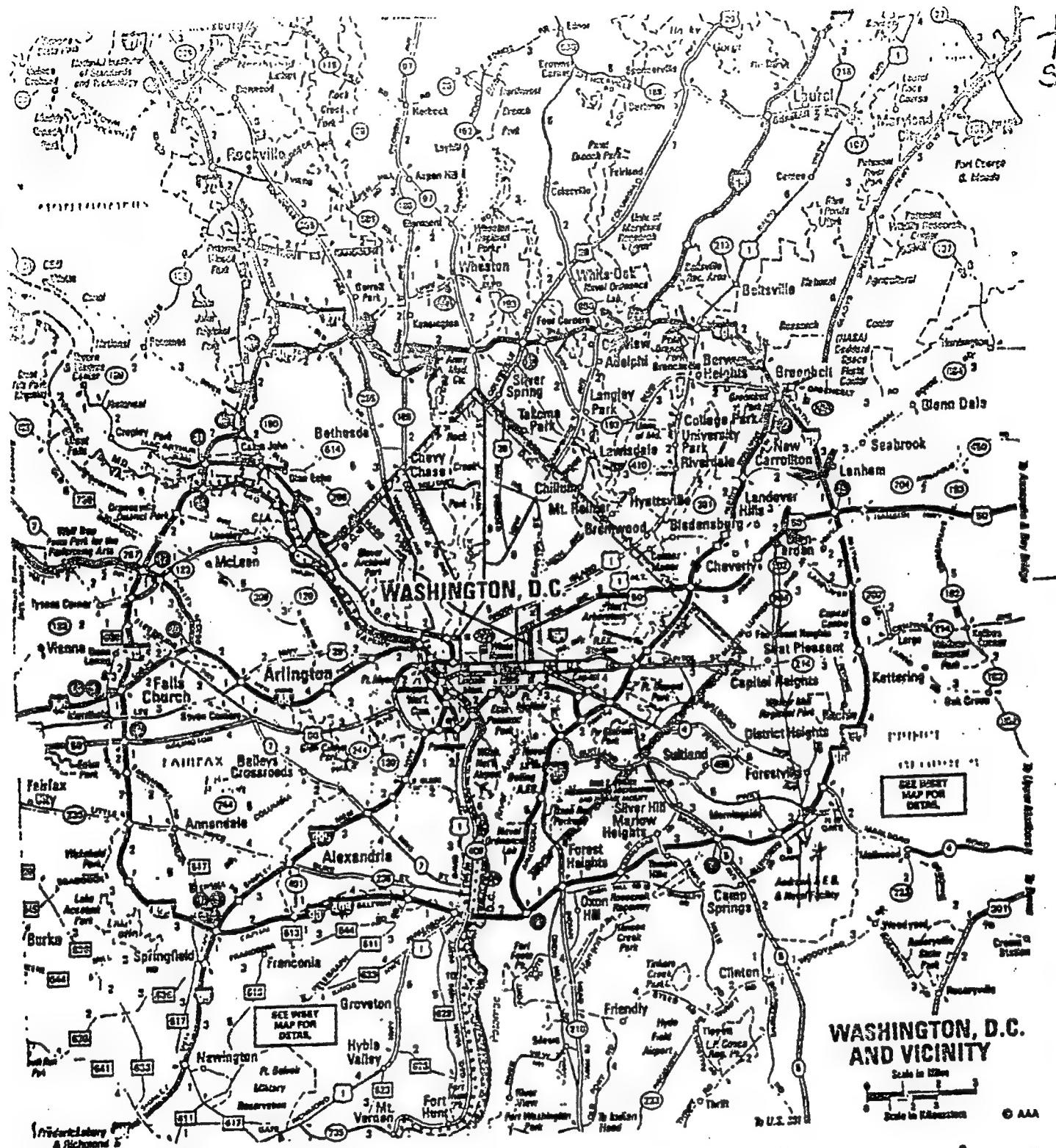
e. Phase E - Upon receipt of the items at PBA command and control will be provided by PBA EOC. Progress will be monitored by the SRF.

GEORGE E. FRIEL
BG, USA
Commander, Service Response Force

OFFICIAL:

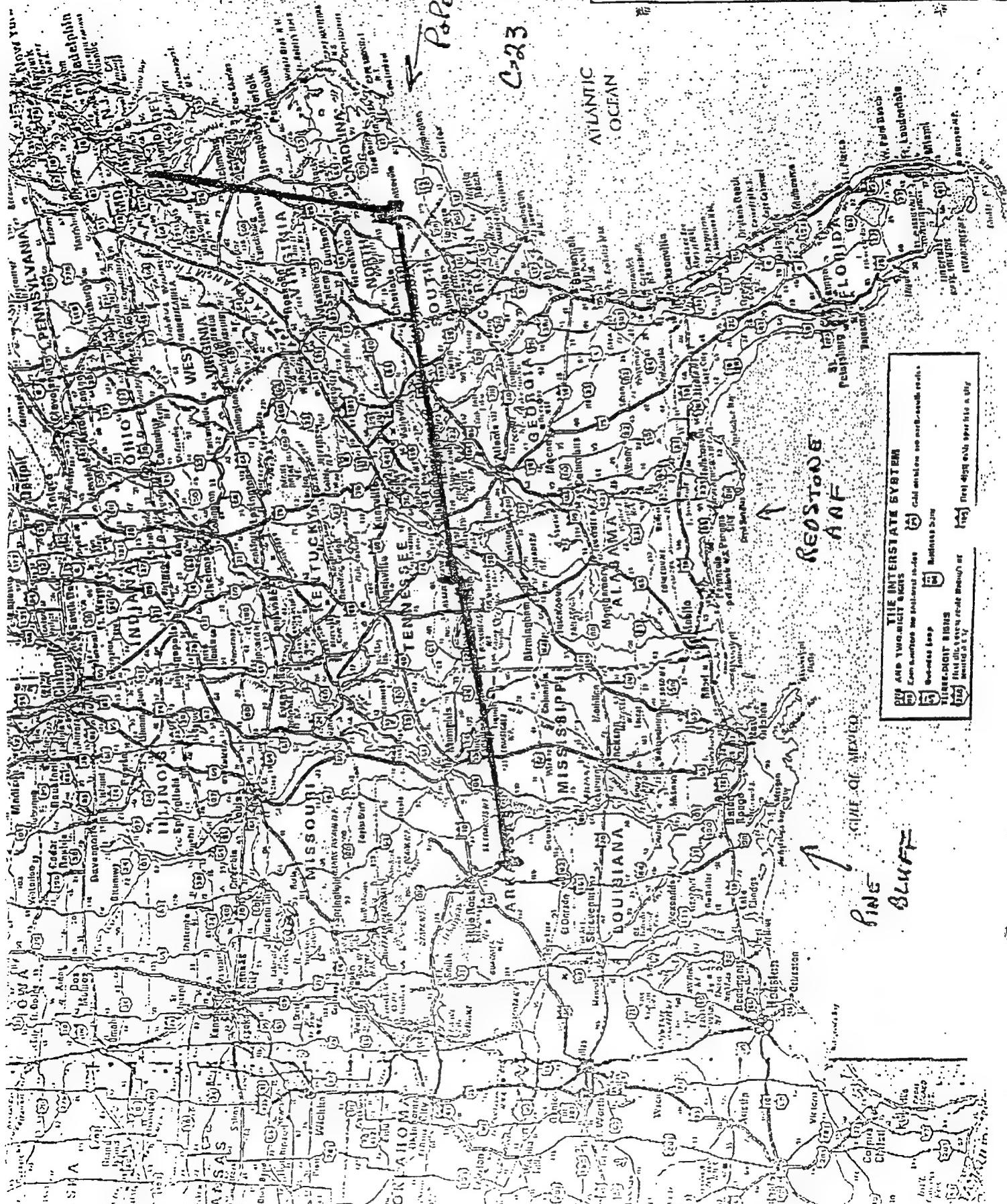


KENNETH R. BOYD
Director, Operations



PAGE AFB CO

C-23 Routes



U.S. Citizens Visiting
Canada - Tourists, U.
S. citizens, however,
Identifying themselves
in order to facilitate
the collection of
National and other
international projects
from U.S. individuals
Resorts, Civil.

Automobiles will be
Canada visitors given
for any period up to
Repayment of costs of
any vehicle purchased
Mexico. Tourists can
participate in the
and no reward for a
due to vehicles obtained
to obtain from Canadian
Consuls of Mexico, a
receipt.

Automobiles, from the
border, from Rio to
Mexico. Cars must
be obtained from
referred to as
for instance, a
motor vehicle in Mexico,
policy is adopted in
is limited down the
roads or required
in Canada, the
of Canada, etc.

THE INTERSTATE SYSTEM	
Interstate Highways	Interstate System
Interstate Highways	Business Days
Interstate Highways	Business Days
Interstate Highways	Business Days

First day each week at a city

POLICE SECURITY REQUIREMENTS FOR OPERATION SAFE REMOVAL

TRAFFIC CONTROL POINTS (TCP):

- TCP 1 52d STREET AT WARREN PLACE
- TCP 2 WARREN STREET AT 50th STREET
- TCP 3 50th STREET AT 4219 50th STREET
- TCP 4 VAN NESS STREET AT FORDHAM ROAD
- TCP 5 UPTON STREET AT FORDHAM ROAD
- TCP 6 51st STREET AT 4020 51st STREET
- TCP 7 52d STREET AT 4005 52d STREET
- TCP 8 DELACARLIA PARKWAY AT ROCKWOOD PARKWAY
- TCP 9 DELACARLIA PARKWAY AT MASSACHUSETTS AVENUE CIRCLE
- TCP 10 52d STREET AT VAN NESS STREET
- TCP 11 52d STREET AT 52d COURT
- TCP 12 WARREN PLACE AT DELACARLIA PARKWAY

TCP	HOURS	AUTHORIZED VEHICLES	AUTHORIZED PERSONNEL
1	24 HR	NOTE 1	NOTE 2
2	0800-2100	NOTE 1	NOTE 2
3	0800-2100	NONE	NONE
4	0800-2100	NONE	NONE
5	0800-2100	NONE	NONE
6	0800-2100	NONE	NONE
7	0800-2100	NONE	NONE
8	0900-1900	NOTE 1	NONE
9	0900-1900	NOTE 1	NONE
10	24 HR	NONE	NONE
11	2000-0800	NONE	NONE
12	1900-0900	NONE	NONE

NOTE 1 - VEHICLES WITH GOVERNMENT PLATES (TAGS)
 CIVIL AUTHORITY VEHICLES
 VEHICLES WITH AREA ACCESS PASS

NOTE 2 - PERSONNEL IN UNIFORM (MILITARY OR CIVIL AUTHORITY)
 PERSONNEL WITH CONTROL CENTER BADGE

**OPERATION
 SAFE
 REMOVAL**

AREA ACCESS

VEHICLE PASS (ACTUAL SIZE 8½" x 11")

354

**OPERATION
 SAFE REMOVAL**

**CONTROL
 CENTER**

CPT BARRETT

Name

019

PERSONNEL PASS (ACTUAL SIZE)
 enc 6



ROADS THAT ARE CLOSED:

ROAD CLOSURES:

9AM - 7PM
DALECARLIA
PARKWAY FROM MASS. AVE CIRCLE TO ROCKWELL

- 9AM - 7PM
- WARREN PLACE
 - WARREN STREET
 - UPTON TERRACE
 - 52ND TERRACE
 - 52ND COURT
 - 51ST STREET
 - 50TH STREET
 - 52ND STREET
 - TILDEN STREET FROM 52ND STREET TO FORDHAM ROAD
 - FORDHAM ROAD FROM TILDEN STREET TO 50TH STREET
 - UPTON STREET FROM 52ND STREET TO FORDHAM ROAD
 - VAN NESS STREET FROM 52ND STREET TO FORDHAM STREET.

BARRETT.

OPERATION SAFE REMOVAL

GUARD INSTRUCTIONS FOR THE PERIOD 161200 JAN 93 - 210800 JAN 93.

1. OPERATIONS ON SITE WILL BE SUSPENDED AND VEHICLES, EQUIPMENT, AND MATERIEL WILL BE CONSOLIDATED AND SECURED. ACCESS TO THE AREA WILL BE CONTROLLED.

2. SECURITY POSTS WILL BE ESTABLISHED AT:

A. 52d STREET AT VAN NESS STREET.

1. MANNED BY A DPD PATROL AND A MILITARY LIAISON.
2. DENY ALL ACCESS TO THE AREA BY ANY MODE OF TRAVEL.
3. OBSERVE THE OPEN LAND AREA FROM DELACARLIA PARKWAY TO THE WORK SITE FOR PEDESTRIAN TRAFFIC.

B. 52d STREET AT 52d COURT.

1. MANNED BY A DPD PATROL AND A MILITARY LIAISON.
2. DENY ALL ACCESS TO THE AREA BY ANY MODE OF TRAVEL, EXCEPT THE FOLLOWING PERSONS;
Dr AND MRS PATRICK KILDEA
Dr AND MRS RIZIK
MILLER CONSTRUCTION WITH VEHICLE PASS (BLUE)
3. OBSERVE THE OPEN LAND AREA FROM WARREN PLACE TO 52d STREET FOR PEDESTRIAN TRAFFIC.

C. WARREN STREET AT WARREN PLACE.

1. MANNED BY A DPD PATROL AND A MILITARY LIAISON.
2. ALLOW ACCESS ONLY TO VEHICLES WITH RESIDENT/GUEST TAGS (GREEN/ORANGE).
3. BE PREPARED TO MOVE TO WARREN STREET AT 50th STREET.

D. 52d COURT.

1. MANNED BY TWO MILITARY PERSONNEL.
2. PROVIDE 24 HOUR PHYSICAL SECURITY AT SITE.

3. THE MILITARY LIAISON WILL ACCOMPANY THE DPD POLICE OFFICER ON DUTY. ANY INTERACTION WITH THE PUBLIC WILL OCCURE WITH THE DPD POLICE OFFICER. IF THE POLICE OFFICER TURNS TO THE LIAISON FOR ASSISTANCE, THE LIAISON WILL SIMPLY PROVIDE THE NUMBER AND NAME OF THE OFFICER ON DUTY AT THE OPERATIONS CENTER AND CONTACT THE OPERATIONS CENTER TO INFORM THEM OF WHAT HAPPENED.

AT NO TIME WILL THE LIAISON ENGAGE IN ANY LAW ENFORCEMENT ACTIVITIES. THIS INCLUDES; SEARCH OR SEIZURE (PERSONS OR PROPERTY), ARREST, STOP AND FRISK, SURVEILLANCE, PURSUIT, AND FUNCTIONING AS AN INFORMANT, UNDERCOVER AGENT, INVESTIGATOR, OR INTERROGATOR.

4. ALL POSTS WILL MAINTAIN COMMUNICATIONS WITH THE OPERATIONS CENTER (5015 WARREN STREET). PERSONNEL ENTERING THE AREA WITHOUT A RESIDENT/GUEST TAG WILL BE REFERED TO THE OPERATIONS CENTER AT 5015 WARREN STREET TO COORDINATE. ANY POST THAT OBSERVES SUSPICIOUS ACTIVITIES WILL NOTIFY THE OPERATIONS CENTER WHO WILL NOTIFY THE DPD POLICE.

5. AT ANY TIME THE LIAISON FEELS UNCOMFORTABLE WITH THE SITUATION AT THE POST, HE WILL CONTACT THE OPERATIONS CENTER. AT NO TIME WILL OTHER MILITARY PERSONNEL RESPOND TO A SITUATION AT A SECURITY POST, THIS WILL BE DONE BY THE DPD POLICE.

6. NEWS MEDIA SHOULD BE REFERED TO THE ON-CALL SRF PAO:

MS. JAN FINEGAN

(HOME)
(MOBILE)
(PAGER)

7. POC THESE INSTRUCTIONS IS CPT BARRETT, SRF # 282-0634, APG # 410-671-2842, HOME #

BARRETT

8 AM TO 6 PM

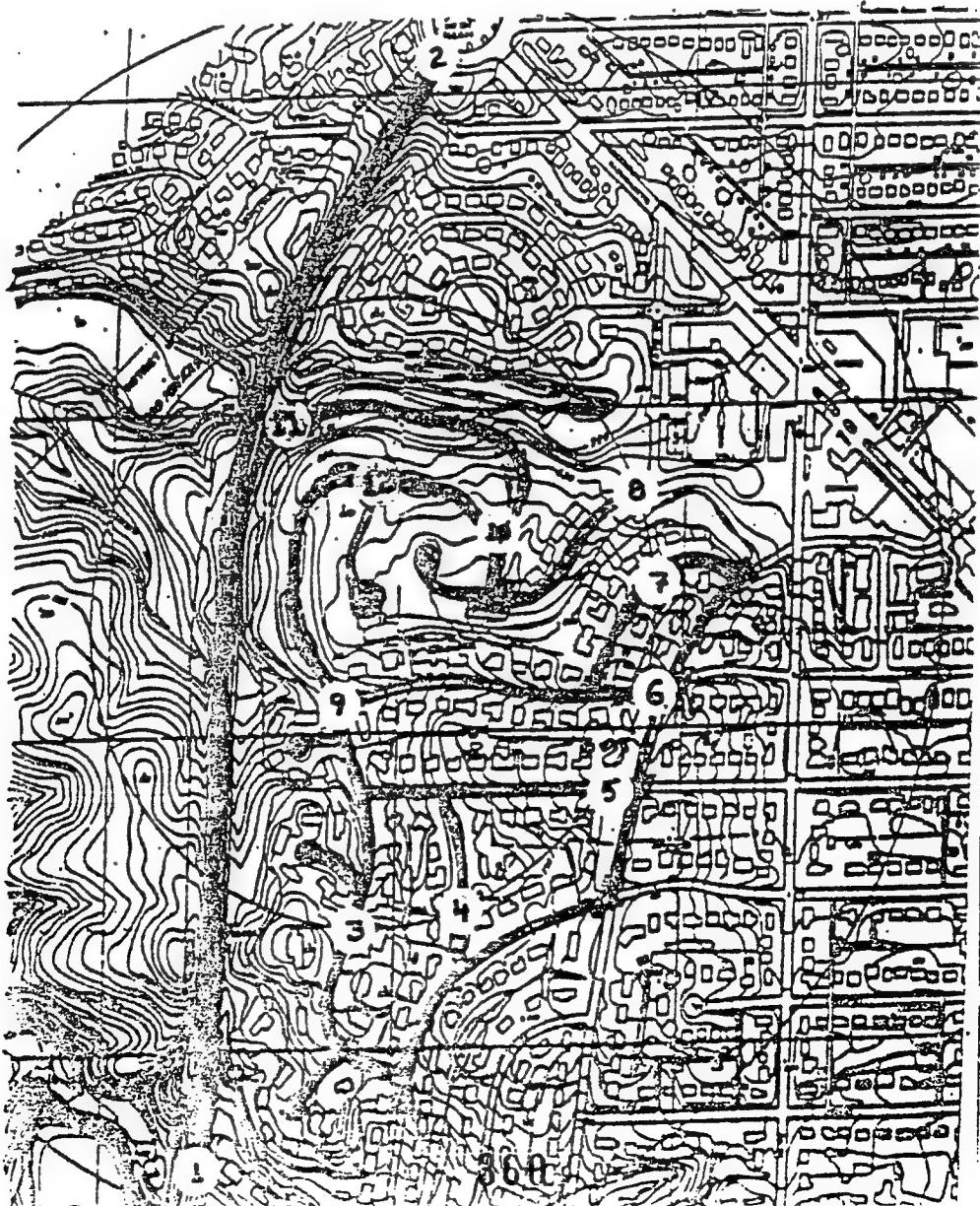
- DALECARLIA PKWY From Rockwood Pkwy To WESTMORELAND CI
- WARREN STREET
- VAR NESS STREET
- UPTON STREET
- 50TH STREET
- 51ST STREET
- 52ND STREET

24 HOURS

~~0800 0830 0830 0830~~

- WARREN PLACE
- 52ND STREET (VAR NESS TO 52ND CT.)
- 52ND COURT

		MPD	MILITARY	MPD	MILITARY	
1	DALECARLIA PKWY @ ROCKWOOD PKWY	X				X
2	DALECARLIA PKWY @ WESTMORELAND CIR.	X				X
3	52 nd STREET	X				X
4	51 st STREET	X				X
5	UPTON STREET @ FORDHAM ROAD	X				X
6	VAN NESS STREET @ FORDHAM ROAD	X				X
7	59 th STREET	X				X
8	WARREN STREET @ 58 th STREET	X		X		X
9	52 nd STREET @ VAN NESS STREET		X	X		X
10	52 nd STREET @ WARREN PLACE		X	X		X
11	WAEREN PLACE @ DALECARLIA PKWY			X		
12	52 nd STREET @ 52 nd COURT			X		



OPERATION 'SAFE REMOVAL'
GUARD INSTRUCTIONS FOR THE PERIOD 301200 JAN 93 - 010800 FEB 93.

1. HAZARDOUS OPERATIONS ON SITE WILL CEASE AND ALL VEHICLES, EQUIPMENT, AND MATERIEL WILL BE CONSOLIDATED AND SECURED. ACCESS TO THE AREA WILL BE CONTROLLED.

2. SECURITY POSTS WILL BE ESTABLISHED AT:

- A. 52d STREET AT VAN NESS STREET.
 - 1. MANNED BY A MPD PATROL.
 - 2. MILITARY LIAISON POSTED, 0900-2100.
 - 3. DENY ALL ACCESS TO THE AREA BY ANY MODE OF TRAVEL.
 - 4. OBSERVE THE OPEN LAND AREA FROM DELACARLIA PARKWAY TO THE WORK SITE FOR PEDESTRIAN TRAFFIC.

- B. 52d STREET AT 5106 52d STREET.
 - 1. MANNED BY A MPD PATROL.
 - 2. MILITARY LIAISON POSTED, 0900-2100.
 - 3. DENY ALL ACCESS TO THE AREA BY ANY MODE OF TRAVEL, EXCEPT THE FOLLOWING PERSONS;
 - Dr AND MRS KILDEA
 - Dr AND MRS RIZIK
 - MILLER CONSTRUCTION WITH VEHICLE PASS (BLUE)
 - 4. OBSERVE THE OPEN LAND AREA FROM WARREN PLACE TO 52d STREET FOR PEDESTRIAN TRAFFIC.

- C. WARREN STREET AT 5015 WARREN STREET.
 - 1. MANNED BY A MPD PATROL.
 - 2. RESPOND TO PROBLEMS.
 - 3. COORDINATE WITH OPERATIONS CENTER DUTY OFFICER.
 - 4. BE PREPARED TO MOVE TO WARREN STREET AT 50th STREET TO RESTRICT ACESSTO RESIDENTS (GREEN PASS), GUESTS (ORANGE PASS), AND MILLER (BLUE PASS).

- D. 52d COURT.
 - 1. MANNED BY TWO MILITARY PERSONNEL.
 - 2. PROVIDE 24 HOUR PHYSICAL SECURITY OF SITE.

3. THE MILITARY LIAISON WILL ACCOMPANY THE MPD POLICE OFFICER ON DUTY. ANY INTERACTION WITH THE PUBLIC WILL OCCURE WITH THE MPD POLICE OFFICER. IF THE POLICE OFFICER TURNS TO THE LIAISON FOR ASSISTANCE, THE LIAISON WILL SIMPLY PROVIDE THE NUMBER AND NAME OF THE OFFICER ON DUTY AT THE OPERATIONS CENTER AND CONTACT THE OPERATIONS CENTER TO INFORM THEM OF WHAT HAPPENED.

AT NO TIME WILL THE LIAISON ENGAGE IN ANY LAW ENFORCEMENT ACTIVITIES. THIS INCLUDES; SEARCH OR SEIZURE (PERSONS OR PROPERTY), ARREST, STOP AND FRISK, SURVEILLANCE, PURSUIT, AND FUNCTIONING AS AN INFORMANT, UNDERCOVER AGENT, INVESTIGATOR, OR INTERROGATOR.

4. ALL POSTS WILL MAINTAIN COMMUNICATIONS WITH THE OPERATIONS CENTER (5015 WARREN STREET). PERSONNEL ENTERING THE AREA WITHOUT A RESIDENT/GUEST TAG WILL WILL BE REFERED TO THE OPERATIONS CENTER

AT 5015 WARREN STREET TO COORDINATE. ANY POST THAT OBSERVES SUSPICIOUS ACTIVITIES WILL NOTIFY THE OPERATIONS CENTER WHO WILL NOTIFY THE MPD POLICE.

5. AT ANY TIME THE LIAISON FEELS UNCOMFORTABLE WITH THE SITUATION AT THE POST, HE WILL CONTACT THE OPERATIONS CENTER. AT NO TIME WILL OTHER MILITARY PERSONNEL RESPOND TO A SITUATION AT A SECURITY POST, THIS WILL BE DONE BY THE MPD POLICE.

6. NEWS MEDIA SHOULD BE REFERED TO THE ON-CALL SRF PAO:

MS. JAN FINEGAN	(HOME)
	(MOBILE)
	(PAGER)

7. POC THESE INSTRUCTIONS IS CPT BARRETT, SRF # 282-0634,
APG # 410-671-2842, HOME #

BARRETT

N

OPERATION SAFE REMOVAL

METROPOLITAN POLICE SUPPORT 301200 JAN 93 - END PHASE I.

1. HAZARDOUS OPERATIONS ON SITE WILL CEASE AND DAILY EVACUATIONS WILL BE TERMINATED. ACCESS TO THE AREA WILL BE CONTROLLED.

2. SECURITY POSTS WILL BE ESTABLISHED AT:

- A. 52d STREET AT VAN NESS STREET.
- B. 52d STREET AT 5106 52d STREET.
- C. WARREN STREET AT 5015 WARREN STREET.

3. ESTABLISH A POLICE TAPE LINE BETWEEN 52d STREET AND DALECARLIA PARKWAY/WARREN PLACE.

4. POC THESE INSTRUCTIONS IS CPT BARRETT, SRF # 282-0634,
APG # 410-671-2842, HOME #

BARRETT

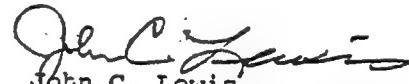
22 January 1993

To: Residents of Yuma Street within the Evacuation Zone Who Choose Not to Evacuate During Operation Safe Removal

An accident leading to the release of chemical agent to the atmosphere during Operation Safe Removal is not likely, but the possibility cannot be ruled-out. The maximum safe hazard distance for the suspect chemical agents is 300 meters, which puts your residence just inside the evacuation zone.

In the event of an accidental chemical agent release, the District of Columbia Fire Department HAZMAT vehicle will sound three blasts on its airhorn. Should this occur, the Army recommends you do the following:

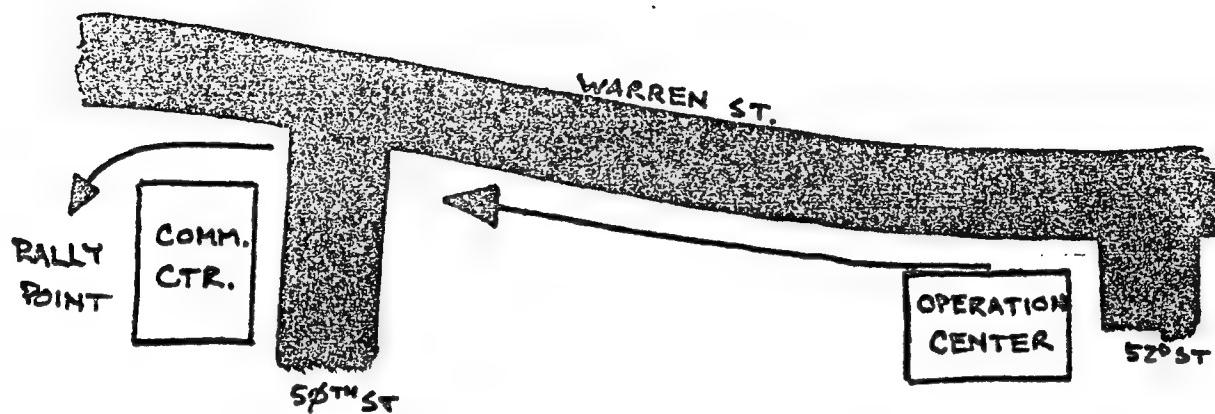
1. Do NOT attempt to evacuate. You almost certainly will not have time to escape the area prior to the arrival of the chemical cloud.
2. You are quite safe inside your residence as long as you complete the following actions:
 - a. remain indoors.
 - b. close all windows and doors.
 - c. turn-off the heating and ventilation system.
 - d. shelter in an interior room, preferably on an upper floor.
3. Because the suspect chemical agents are so volatile, the chemical cloud should dissipate quickly, within a few minutes. Once the Army and DC government determine it is safe for you to exit your residence, the DC Police Department will notify you that it is safe to do so.



John C. Lewis

Chief, Executive Command Division
Office of Emergency Preparedness

EVACUATION PLAN



In the event of an emergency, the OPERATION CENTER will be evacuated to the Community Center.

Evacuation Procedures:

Stop, get protective mask, move from building out the front door, turn left on Warren St., move as quickly as possible down the hill to 50th St. The Community Center is the first building on the left after the intersection. The parking lot behind the building is the rally point. All Section/Division Chiefs should make sure all personnel are accounted for and all classified material is accounted for.

~~ROUTINE~~

~~0920~~

DATE: 042
TIME: 1344
12 February 93 (0920)Y
1 Cy Reading File
ACTION: AMSCB-CMO

RAAUZYUW RUKGNDW0016 0412116-UUUU--RUEANEW.

ZNR UUUUU

R 081330Z FEB 93

FM SRF OSC
TO RUEADWD/HQDA WASH DC//DAMO-SWS/DAMO-SWC/DALO-SMA-ECD/DACS-SF//
DAMO-ODL/SGPS-PSP/SAIG-TI/SFIL-CD//
RUKGNBA/CDRUSANCA FT BELVOIR VA//MONA-SU/MONA-CM//
RUKLDAR/CDRAMC ALEX VA//AMCAM-CN/AMCSF-C//
RUEANEW/PM CML DEMIL APG MD//SAILE-PM/SAILE-MS//
INFO RULNAPG/CDR CBDA APG MD/AMSCB-CMO//
RUKGNDW/CDR MDW WASH DC/ANCS/ANOP

BT

UNCLAS

SUBJ: CHEMICAL EVENT REPORT

1. GENERAL. SFC COMMANDER ARRIVED ON SITE 7 JAN 93, ASSESSED STATUS

AND ISSUED DIRECTIVES FOR 08 JAN 93. OPERATIONS KEY PERSONNEL:

OSD/SRFC BG FRIEL
DEPUTY COL READ
IRF CDR COL HARDEETY

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SITE CDR LTC BATT

2. OPERATIONS.

A. CURRENT OPERATIONS. BEGINNING 0800Z JAN 93. OPERATIONS CONTINUE UNDER TEC DIRECTION TO PREPARE MATERIALS EXTRACTED FROM SITE FOR TRANSPORT AND REMOVAL FROM THIS LOCATION. THREE DISTINCT MATERIAL GROUPINGS EXIST: UNEXPLODED, NON-LIQUID FILLED MUNITIONS; LIQUID FILLED SUSPECT CHEMICAL MUNITIONS; AND METAL SCRAP. PRIORITY EFFORTS

WIDEGOWARD REMOVAL OF NON-LIQUID UXO UNDER FOD CONTROL AND LIQUID FILLED AMUNITIONS UNDER TEC CONTROL.

B. PLANNED OPERATIONS. BASED UPON PREFERENCE OF CIVIL

PAGE 03 RUKGNDW0016 UNCLAS
AUTHORITIES AS WELL AS SAFETY ASSESSMENTS RESOLVING FROM WEATHER,
ETC., THE SRFC INTENDS TO TERMINATE OPERATIONS AND SECURE THE SITE BY
082100R JAN 93, AND RESTORE SITE OPERATIONS EFFECTIVE 110900R JAN 93.
CIVIL AUTHORITIES WILL PROVIDE SECURITY THROUGH THE WEEKEND.

3. PUBLIC AFFAIRS. COORDINATION WITH CIVIL AND OTHER FEDERAL AGENCY
PUBLIC AFFAIRS IS WORKING WELL. SRFC HAS NO PLANNED PRESS
CONFERENCES FOR 08 JAN 93.

4. HOMEOWNER/RESIDENTS. RELATIONS CURRENTLY APPEAR GOOD WITH
HOMEOWNERS/RESIDENTS. SRFC PLANS TO BRIEF HOMEOWNERS ASSOCIATION
PRIOR TO SECURING SITE FOR WEEKEND. FOCUS WILL BE ON ASSESSING

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SAFETY AND SECURITY FOR THE WEEKEND.

5. COMMANDER'S ASSESSMENT. SITUATION IS UNDER CONTROL. ADVERSE

ROUTINE

PAGE: 2

PAGE: 3

ROUTINE

WEATHER CONDITIONS WILL LIMIT AIR TRANSPORT OF MATERIAL FROM THE SITE. SRFC IS CURRENTLY WORKING WITH ARSTAFF FOR GROUND MOVEMENT OPTIONS INTENT IS TO PUSH FORWARD WITH ON-SITE OPERATIONS AS PREVIOUSLY DISCUSSED WITH SAFETY REMAINING PARAMOUNT. OUTSTANDING ISSUE REQUIRING RESOLUTION IS CERTIFICATION CRITERIA AND DISPOSITION INSTRUCTIONS FOR THE THREE GROUPS OF MATERIAL. NO FURTHER IMMEDIATE NEEDS AT THIS POINT. SRFC WILL BE PREPARED TO OFFER FULL STATUS BRIEF IN AOC ON 11 JAN 93. UNDERSECRETARY OF ARMY SHANNON WAS

PAGE 05 RUKGNDW0016 UNCLAS
BRIEFED BY IRF COMMANDER AT 1000 HRS 08 JAN 93.

BT
#0016
NNNN

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ROUTINE

Received: from cbda9.apgea.army.mil by cbda7.apgea.army.mil id aa13643;
5 Mar 93 9:36 EST
Date: Fri, 5 Mar 93 9:36:36 EST
From: Dotty Rembold <ddrembol@cbda9.apgea.army.mil>
To: krboyd@cbda9.apgea.army.mil
cc: brellnb@cbda9.apgea.army.mil, rdread@cbda9.apgea.army.mil,
ddrembol@cbda9.apgea.army.mil
Subject: Spring Valley Report
Message-ID: <9303050936.aa26593@cbda9.apgea.army.mil>

Ken:

BG Friel wanted you to have this for the after action report.

----- Forwarded message # 1:

Date: Mon, 1 Mar 93 10:14:07 EST
From: Stella C. Matthews <scmatthe@cbda9.apgea.army.mil>
To: gefrieh@cbda9.apgea.army.mil, maparker@cbda9.apgea.army.mil,
gefrieh@cbda9.apgea.army.mil, wtbatt@cbda9.apgea.army.mil,
jjvervrie@cbda9.apgea.army.mil, jrward@cbda9.apgea.army.mil,
swschult@cbda9.apgea.army.mil, whcollin@cbda9.apgea.army.mil,
egcantem@cbda9.apgea.army.mil, cpfergus@cbda9.apgea.army.mil,
mebrooks@cbda9.apgea.army.mil, scmatthe@cbda9.apgea.army.mil
cc: mebrooks@cbda9.apgea.army.mil, scmatthe@cbda9.apgea.army.mil
Subject: Spring Valley Report
Message-ID: <9303011014.aa26039@cbda9.apgea.army.mil>
Resent-Date: Mon, 1 Mar 93 10:14:10 EST
Resent-From: gefrieh@cbda9.apgea.army.mil
Resent-To: pataran@cbda9
Resent-To: ddrembol@cbda9
Resent-To: brellnb@cbda9

MRS. MARGUERITE E. BROOKS, TEAM LEADER, SENDS:

1. In support of the U.S. Army Edgewood Research, Development and Engineering Center (ERDEC) "Operation Safe Removal" at the Spring Valley development in Washington, DC, selected suspect samples and munitions from the area were packed in "pigs" and transported to ERDEC. The samples were subjected to chemical analysis by scientists assigned to the Chemistry Department, Research and Technology Directorate, ERDEC. All samples underwent a screening protocol. Samples of granular and fiber materials were first analyzed by thermal desorption/mass spectrometry and direct inlet mass spectrometry. Each sample was subjected to solvent extraction/leaching. The recovered solvents were analyzed by nuclear magnetic resonance (NMR), direct inlet mass spectrometry, gas chromatography/mass spectrometry (GC/MS), liquid chromatography/ion chromatography (LC/IC) and infrared spectrometry (IR). Elemental analysis was performed using inductively coupled plasma (ICP) spectrometry on selected samples, as appropriate. The chemical analyses of these samples follows.

2. Four pigs containing samples for analysis were delivered by U.S. Army Technical Escort Unit (TEU) to bldg. E3300 at 1400, 9 January 1993.

a. Pig #1 contained two packages of broken glass. Each of the samples appeared to contain the same chemical components. These consisted of multiple aromatic and vinyl compounds related to Lewisite (L), including chlorovinylarsonic acid (CVAA), chlorovinylarsonic acid oxide (CVAOA), bis(2-chlorovinyl)chloroarsine (L2), and tris(2-chlorovinyl)arsine (L3). CVAA was determined to be 20 ppm and 40 ppm in samples #1 and #2, respectively. CVAOA was not detected in samples #1, but was determined to be 20 ppm in sample #2. It should be noted that L and CVAA can not be differentiated since tris(2-chlorovinyl)arsine (L3). The CVAA was determined as 1 ppm and 4 ppm, respectively, in samples #1 and #2. It should be noted that L and CVAA can not be differentiated since each is determined as CVAA.

b. Pig #2 contained four samples. Sample #1 consisted of a test tube packed with soil having an oily sheen. The presence of the vomiting agent DM (Adamsite, diphenyl chloroarsine), and its precursor/degradation product diphenyl amine were identified and confirmed. They were present in approximately a 65:30 molar ratio respectively, with two or three other compounds as minor components. Elemental analysis showed arsenic present at 250 ppm. Quantitation of the DM using the standard ultraviolet method gave a concentration of 42 mg DM/g sample. The sample met the quantitative requirement criteria that each of the absorbance wavelengths matched those of a standard of DM perfectly. Samples #2 and #3 consisted of tan and gray powders, respectively. Each was identified as containing background hydrocarbons with as the major component and long chain hydrocarbons as trace components. Sample #4 consisted of solid chunks of bituminous material having a green color on the surface. Analysis of the sample identified components similar to those detected in samples #2 and #3 from this pig.

c. Pig #3 contained three samples: A fuse leaking a dark viscous liquid; a leatherman tool apparently used to sample the liquid; and, a vial containing some of the liquid. The liquid in each sample was identified and confirmed to be the lachrymator CN, chloroacetophenone, with minor quantities of its aromatic degradation products, acetophenone, benzaldehyde and benzoic acid.

d. Pig #5 contained three samples. Sample #1 consisted of a sandy material containing water and trace quantities of background hydrocarbons. Sample #2 consisted of a pink colored polymeric foam with traces of soil adhered to it. The styrene structure of the polymeric foam was the only compound detected. Sample #3 was similar to sample #1 in appearance and analysis.

3. Two pigs containing samples for analyses were delivered by TEU to bldg. E3300 at 2015, 14 January 1993.

a. Pig #4 contained a mixture of various types of glass, household ceramic pieces, and both loose and packed soil. A mixture of these materials was leached with solvent. The presence of numerous aromatic and aliphatic compounds was observed. Trinitrotoluene (TNT) and aliphatic hydrocarbons having a carbon chain greater than 10 were detected. Three unknown compounds having mass weights of 256, 282 and 284 were detected, but do not appear to be related to CW agents.

b. Pig #6 contained five samples. Sample #1 consisted of a hard, black solid from a 75 mm round and was marked #43. Numerous aliphatic (C14 to C16) and aromatic compounds were detected. Identification of acetophenone, benzoic acid, and diphenylsulfide by GC/MS were also quantitated by GC/MS as 40% acetophenone, 16% benzoic acid, and 15% diphenylsulfide with smaller quantities of diphenylsulfone, phenol, diphenylsulfoxide, and benzaldehyde. The presence of acetophenone was confirmed by NMR. The possible presence of chloroacetophenone (CN) at <10 ug/g was detected by IR. Sample #2 consisted of a white and tan solid and soil. The only compound identified in this sample was possibly benzoic acid. Sample #3 consisted of soil and a black tar-like material cited as being from a bomb windshield. Analyses were not definitive, but direct inlet/MS showed three mass peaks, which indicate the presence of sulfur (S8). Sample #4 was a fibrous material which was completely soluble in chloroform. It contained primarily aliphatic hydrocarbons, with traces of aromatic compounds. Heteroatoms such as oxygen, chlorine, and/or nitrogen could possibly be present. Sample #5 consisted of broken glass. Direct inlet/MS identified a mass peak of 104 related to styrene. Liquid chromatography identified the presence of 9 ppm of the Lewisite hydrolysate 2-chlorovinylarsonic acid (CVAA). No other compounds were identified.

4. Two pigs containing samples for analysis were delivered by TEU to bldg. E3300 at 1240, 15 January 1993.

a. Pig #9 contained four samples. Sample #1 consisted of green glass

fragments with adhering soil particles. 2,4,6-trinitrotoluene, TNT, was identified and confirmed as a trace component. An additional aliphatic compound having ether-like linkages was detected, but this compound was not to be related to CW agents. Sample #2 consisted of clear glass with soil clumped on some surfaces. Trace amounts of TNT were also identified and confirmed as a component of this sample. Sample #3 also consisted of clear clear glass with soil clumped on some surfaces. Tris(2-chlorovinyl)arsine (L3) and TNT were identified and confirmed at higher than trace levels. Sample #4 consisted of clear and green glass mixed with black soil. The L hydrolysate, CVAA, was present at 2 ppm. Higher concentrations of triphenylarsine were detected (31% of the total organic compounds present) and confirmed. Diphenylsulfide was also detected at a relatively high (19%) concentration. Several other unidentified aromatic compounds were detected at trace levels.

b. Pig #10 contained eight samples. Sample #1 consisted of a brown waxy solid. It was identified and confirmed to be the explosive tetryl (85% pure). Sample #2 was finely divided yellow powder consisting of a mixture of tetryl and TNT in a molar ratio of 89:10.5. A small amount (0.5%) of a compound thought to be tetryl without the methyl moiety was also detected. The molar ratios were determined by NMR and the identification was confirmed by direct inlet/MS. Sample #3 consisted of white rubber tubing, coated with dirt. This consisted primarily of L3 and approximately 1 ppm of the L hydrolysate, CVAA. Additional hydrocarbons were also detected. The majority of the arsenic (300 ppm) can be accounted for by the presence of these L related compounds. However, there could be low ppm levels of arsenic present as inorganic salts or the oxides of arsenic. Sample #4 was of black soil which appeared to contain charcoal fragments. The only organic component detected was the L hydrolysate, CVAA, at approximately 1 ppm. Elemental analysis detected low levels of aluminum, iron, lead, arsenic, trace quantities of molybdenum and zinc, and levels of potassium and magnesium expected in soil. Sample #5 consisted of a black solid, resembling charcoal. Only background hydrocarbons were detected in this sample. Sample #6A consisted of a light colored sand. Barely detectable levels of CVAA were identified. Arsenic quantitated at 2 ppm supports the presence of this compound. Sample #6B consisted of a dark colored sand. Again a low level of CVAA, 1 ppm, was detected. Quantitation of arsenic at 70 ppm suggests the presence of inorganic arsenic salts or arsenic oxides along with the CVAA. Sample #7 consisted of a mixture of small rocks and soil. The only compound detected was a trace of TNT.

5. Samples of the fills from two munitions, #71 and #82 were delivered by Chemical Transfer Facility (CTF) personnel to bldg. E3300, 18 January 1993, at 1030 and 1515 hours, respectively. Each sample consisted of a dark viscous liquid, which emitted a slight white vapor when exposed to air. Vapor samples of each were analyzed by thermal desorption/mass spectrometry prior to subjecting the liquid to the analysis protocol. The pH of a 1:1 water solution was also attempted. Analysis of each of the munition fills was exactly the same. They contained no organic compounds, no halogenated compounds, but consisted of fuming sulfuric acid.

6. A sample of the fill from the #65 munition was delivered to bldg. E3300 by CTF personnel at 1250, 19 January 1993. The sample was a mobile liquid with a slight blue color. Vapor samples were analyzed by thermal desorption/mass spectrometry prior to subjecting the liquid sample to the analysis protocol. A solid which was separated from the liquid was subjected to elemental analysis. The major component detected was water. Traces of aromatics, including one substituted benzenes and naphthalene were detected. Ion chromatography detected 50 mg chloride ion/ml of liquid. Elemental analysis of the liquid and the separated solid identified the following:

Element	Liquid ppm	Solid ppm
Aluminum	4	76
Arsenic	1	5
Barium	205	2600

Calcium	31,100	19,000
Copper		140
Iron	3	.99,000
Lead		1000
Magnesium	72,100	93,000
Manganese		380
Potassium	1,195	
Sodium	1,160	1100
Sulfur	143	630

7. Pig #8, containing the sample opened at the U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID), then sent to ERDEC, was delivered to bldg. E3300 at 1300, 21 January 1993.

a. The container, which had been drilled and plugged by USAMRIID personnel, was a heavy metal pipe with threaded ends, resembling laboratory equipment known to have been used to perform pressure reactions. A vapor sample was analyzed by thermal desorption/mass spectrometry prior to subjecting the sample to the analysis protocol. A total of 40 mL. of a dark green non-viscous liquid was removed from the container. At room temperature, a brown vapor, resembling nitrogen dioxide, was emitted by the liquid.

b. The major component in the liquid was identified and confirmed to be nitrobenzene. Minor components were identified as isomers of dinitro and trinitrobenzene, and nitric acid dissolved in the liquid. Elemental analysis gave the following data:

Element	ppm
Calcium	1
Iron	532
Magnesium	4
Manganese	2
Sodium	62

8. The second #9 pig, containing four samples was delivered by TEU to bldg. E3300 at 1430, 21 January 1993.

a. Sample #1, marked SOL 40, consisted of pieces of glass and a broken bottle which appeared to have a charred purple substance on the surface. The sample showed no organic compounds present.

b. Sample #2, marked SOL 43, consisted of broken glass. The analyses detected only background hydrocarbons.

c. Sample #3, marked SOL 44, consisted of broken glass. Only background hydrocarbons were detected in this sample.

d. Sample #4, marked SOL 45, consisted of a rubber stopper with a piece of glass tubing. Numerous aliphatic hydrocarbons, unsaturates and aromatic compounds were detected. No single component could be identified. Elemental analysis gave the following data:

Element	ppm
Arsenic	<0.05
Calcium	224
Magnesium	143
Manganese	2
Sodium	57
Sulfur	288
Zinc	184

9. A second #10 pig was delivered to bldg. E3300 by TEU at 1530, 22 January 1993. The pig contained 7 samples.

a. Sample #1 described as "bright orange dirt around 75 mm projectile NE corner of pit 50 inch deep" had been identified on site as possibly containing trinitrotoluene, (TNT). No TNT or CW related organic compounds were detected. Only typical soil background hydrocarbons were found. Elemental analysis gave the following data:

Element	ppm
Aluminum	20,500
Arsenic	35
Barium	180
Cadmium	19
Calcium	90
Copper	114
Iron	96,200
Lead	3520
Magnesium	92
Manganese	137
Potassium	11,200
Sodium	3,540
Sulfur	6,360
Vanadium	32
Zinc	32

b. Sample #2, "a white powder taken from a livens (item #59)" also showed no organic species beyond a hydrocarbon background. An elemental analysis provided the following data:

Element	ppm
Aluminum	2030
Arsenic	1
Barium	64
Cadmium	67
Calcium	1430
Copper	50
Element	ppm
Iron	4450
Lead	203
Magnesium	24,700
Manganese	188
Potassium	2290
Sodium	7620
Vanadium	5
Zinc	234,000

c. Sample #3, "bright yellow dirt at end of 2 suspect livens NW corner 4 1/2 in." also showed no organic species beyond a hydrocarbon background. An elemental analysis provided the following data:

Element	ppm
Aluminum	9280
Arsenic	2
Barium	141
Cadmium	14
Calcium	148
Copper	22
Iron	41,900
Magnesium	252
Manganese	217
Potassium	12,800
Sodium	8810
Vanadium	24
Zinc	38

d. Sample #4, "black square of unknown material 3 in. x 3 in." resembled a roofing material. Analysis identified a large number of aliphatic compounds having high molecular weights. This is typical of tar paper and roofing material. The concentration of these compounds would totally obscure trace concentrations of other organic compounds.

e. Sample #5, "a probe placed in flash channel" also showed no organic species beyond a hydrocarbon background. The potential presence of elemental sulfur was identified by mass spectrometry. Elemental analysis identified the following:

Element	ppm
Aluminum	11.3
Arsenic	<0.08
Copper	44.5
Magnesium	61.6
Potassium	92.6
Sodium	30.8
Zinc	17.4

f. Sample #6, "green stained nail from 3 ft." also showed no organic species. The nail was made of copper. No anionic species were detected.

g. Sample #7, "a small tube 1 1/2 in. L x 1/4 in. dia." showed only a hydrocarbon background typical of soil. A trace of phthalate was detected by direct inlet/MS. Elemental analysis identified the following:

Element	ppm
Aluminum	383
Barium	1
Calcium	28
Iron	188
Magnesium	84
Manganese	4
Sodium	34

10. Five pigs, #11, #12, #13, #14, and #15 were delivered to bldg. E3300 by TEU 1000, 25 January 1993.

a. Pig #11 contained 4 samples. Sample #1, SOL 56, consisted of a small glass spray adaptor or trap with copper tubing. Only background hydrocarbon was detected in this sample. Sample #2, SOL 62, consisted of a glass bottle. Analysis showed mainly hydrocarbon background plus a small amount of what might be a propyl or butyl sulfide or ketone. Sample #3, SOL 59, consisted of another glass bottle. Analysis showed only background hydrocarbons. Sample #4 consisted of glass pieces. Long chain aliphatic compounds with molecular weights up to 400 were detected.

b. Pig #12 contained 2 samples. Sample #1, SOL 63, consisted of amber glass pieces. Only hydrocarbon background and water were detected on this sample. Sample #2, SOL 64, consisted of clear glass pieces. Only background hydrocarbons were detected in this sample.

c. Pig #13 contained 7 samples. Sample #1, SOL 71, consisted of fiber wadding. Only background hydrocarbons were detected. Sample #2, SOL 73, consisted of "cloth from around item # 98". Only background hydrocarbons were detected in this sample. Sample #3, SOL 66, consisted of stoppers with glass tubing. The glass tubing was removed and analyzed to prevent the rubber stopper components from interfering with the analysis. Only background hydrocarbons were detected in this sample. Sample #4, SOL 74, consisted of wooden pieces. Only background hydrocarbons were detected. Sample #5, SOL 68, consisted of a "large rubber stopper with one hole". This was not a rubber stopper but resembled a cork ring used in laboratories to hold round bottom flasks in. It was very porous. Analysis identified only background

hydrocarbons. Sample #6, SOL 67, consisted of a section of copper tubing. Only background hydrocarbons were detected on this sample. Sample #7, SOL 69, consisted of clear broken glass with a black tar substance adhered to it. Again only background hydrocarbons were detected.

d. Pig #14 contained 7 samples. Sample #1, SOL 60, consisted of "a green solid from a lead lined 75 mm, # 96". Sample #2, SOL 58, consisted of a "2-holed stopper with glass tubing". Only the glass tubing was evaluated from this sample. Sample #3, SOL 53, consisted of a "glass lab bottle". Sample #4, SOL 70, consisted of a "black and white granular solid". Sample #5, SOL 57, consisted of multiple glass pieces. Sample #6, SOL 75, was a "metal section from wall of item # 98 (spray tank)". Analysis of each of these samples showed only background hydrocarbons. Sample #7, SOL 76, consisted of "metallic tubing/fitting". An unusually high concentration of aliphatic hydrocarbons was detected.

e. Pig #15 contained 3 samples. Sample #1, SOL 72, was "a white flaky material from inside a ceramic jar". Only background hydrocarbons were detected in this sample. Sample #2, SOL 65, consisted of "broken glass tubing". Very low, trace levels of unidentified compounds containing OCH₂, SCH₂, and/or NCH₂ moieties were detected beyond the hydrocarbon background. Sample #3, SOL 55, consisted of an "Erlenmeyer flask". Only background hydrocarbons were detected in this sample.

11. Five pigs, #17, #18, #19, #21 and #22 were delivered to bldg. E3300 by TEU at 1010, 27 January 1993.

a. Pig #17 contained 2 samples. Sample #1, SOL 83, consisted of "various clear bottle pieces". Sample #2 consisted of "various amber jar broken pieces". Each sample showed only background hydrocarbons, with no evidence of ionic or metal species.

b. Pig #18 contained 9 samples. Sample #1, SOL 78, was a "glass pipet stuck in glass jar top". Sample #2, SOL 81, consisted of "broken glass test tubes". Each of these samples contained only background hydrocarbons. Sample #3, SOL 87, was a "white powder from inside a 75 mm". The only organic compounds present were background hydrocarbons. However, direct inlet MS suggested the presence of a mixture of arsenic and arsenic (III) oxides. Peaks assigned to arsenic oxide agree with those obtained for an authentic sample. Sample #4, SOL 86, consisted of "clear glass pieces w/black tar-like substances". Only background hydrocarbons were detected on this sample. Sample #5, SOL 82, consisted of a "broken small glass bottle with tube". Sample #6 was a "glass stopper". Sample #7, SOL 77, consisted of a "glass bottle from aspirator/trap w/copper fitting". Sample #8, SOL 80, consisted of "metal handles". Sample #9, SOL 84, consisted of "cloth fiber pieces". Each of these samples contained only background hydrocarbons.

c. Pig #19 contained 4 samples. Sample #1, SOL 91, consisted of a "75 mm base w/black substance lining interior". Sample #2, SOL 90, consisted of a "black burnt substance found in 2 qt can". Sample #3, SOL 92, was a "white granular substance found around glassware". Sample #4, SOL 93, consisted of "a tan solid from base of 75 mm." Each of these samples contained only background hydrocarbons. There was indication of some metals present in sample #4.

d. Pig #21, LIQ 5, contained a "liquid from inside 75 mm, #126". This sample had been identified as containing components potentially related to mustard, (H). The sample consisted of a slightly viscous yellow liquid with a fine particulate suspension. The pH of the liquid was 5, slightly acid. Compounds identified and confirmed as being present included thiodiglycol (TDG), 20 %; the TDG sulfoxide, 0.5%; the TDG sulfone, 1,4 dithiane and 1,4 oxathiane in trace quantities. IC identified the chloride content of the sample at 2%. Elemental analysis found the following metals:

Element	ppm
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Arsenic	<0.05
Cadmium	35
Calcium	69
Copper	1800
Iron	135,000
Magnesium	50
Manganese	455
Sodium	75
Sulfur	48,900

e. Pig #22 contained 4 samples. Sample #1, SOL 89, consisted of "clay-like filler from inside fuse of 75 mm, # 114". This sample appeared to be insoluble in the solvents used. No organic structures were detected. However, direct inlet mass spectrometry identified the sample as red phosphorus. Elemental and total phosphorus analysis confirmed the presence of phosphorus at 25% and detected arsenic at 40 ppm. Sample #2, SOL 94, was a "white powder from item # 75, unfired projectile". The only organic species detected were background hydrocarbons. However, direct inlet MS spectrum of the solid was almost identical to that of sample #3, pig #18, indicating the presence of arsenic, arsenic oxide, and possibly other related oxides and/or acids. Sample #3, SOL 96, consisted of glass "tubing". The presence of L3 was identified and confirmed in this sample. Several other trans-vinyl compounds which appear to be L analogs or degradation products were also detected. Numerous aliphatic hydrocarbons were detected at much higher concentrations than expected for background levels. No H type compounds, nor L1 or L2 were detected. Sample #4, SOL 95, consisted of "part of item #118, smoke can". Only background hydrocarbons were detected. There was indication of possible metals present.

12. Pig #23 was delivered to bldg. E3300 by TEU 1 February 1993. Samples from it had previously been evaluated at USAMRIID and found not to contain biologically active components. The pig contained four samples. Sample #1A, SOL 97, consisted of a "broken glass bottle with a black substance". Only background hydrocarbons were detected in this sample. Sample #1B, SOL 98, consisted of "brown filler from inside 75 mm # 141". Aromatic ketone and ester type compounds (condensation/degradation products of CN) were detected. Mass spectrometry identified the presence of diphenylsulfide and low levels of CN and acetophenone with possible trace levels of a dimer and and trimer formed from the acetophenone. Chloride was detected at a concentration of 1.5 mg/g. Sample #1C, SOL 99, consisted of "lead balls and filler material from 75 mm #137". Branched alkyl and aromatic compounds detected could be related to diesel fuel. No evidence of any components related to H, L, or hazardous materials were detected. Sample #1D consisted of "lead from inside 75 mm #100". Traces of acetophenone, benzoic acid and possible alcohols were detected. A mixture of two condensation products of CN, having a molecular weight of 240, have been identified as approximately

67 mole% phenyl-C(O)OCH₂C(O)-phenyl
 33 mole% phenyl-C(O)-CH₂CH₂-C(O)-phenyl

13. Six munitions were opened and sampled by CTF personnel 1 and 2 February 1993. Samples from each were delivered to bldg. E3300 for analysis by CTF personnel. The items are listed in order of sample receipt.

Item #	Descriptor	Sample Appearance
87	livens	Light blue colored mobile liquid
67	4.7"	Gray mobile liquid, dark sediment
147	75 mm	Fibrous solids
90	75 mm	Dark slightly viscous liquid, solid particles suspended
113	75 mm	Dark mobile liquid, solid particles suspended
142	75 mm	Gray mobile liquid, dark sediment

a. The sample from item #87 appears to contain water as the primary component. Ion chromatography identified 50 mg chloride/mL. Elemental analysis of the sample gave the following data:

Element	ppm
Arsenic	5
Aluminum	16,900
Barium	16,100
Calcium	72,700
Copper	5
Iron	346
Manganese	189
Magnesium	159,000
Potassium	9020
Sodium	144,000
Zinc	16

b. The sample from item #67 also appeared to have water as the primary component. The mustard hydrolysate thioglycol (TDG) was detected at 100 ppm levels. Other mustard degradation products were also detected. Ion chromatography detected 2 mg nitrate/mL. A separated lower layer from the munition was analyzed to ensure it did not contain intact H. The analysis identified the same components as in the original sample. No intact H was present.

c. The sample from item #147 appeared to contain only innocuous aliphatic and aromatic hydrocarbons.

d. The sample from item #90 was identified and confirmed to contain a high concentration of intact mustard (at least 60% pure), in addition to numerous mustard hydrolysates and degradation products. Thioglycol (TDG) was detected at the 1 mg/mL level. Indicators point to a high metal content.

e. The sample from item #113, while primarily water, was found to contain significant amounts of H hydrolysates and degradation products. A separated lower layer from the munition was analyzed to ensure it did not contain intact H. The analysis identified the same components as in the original sample. No intact H was present. Indicators point to a high metals content.

f. The sample from item #142 appeared to have water as the primary component. The analysis showed the only organic components to be background hydrocarbons. Ion chromatography detected 50 mg chloride/mL and 1 mg sulfate/mL.

Summary

1. A total of 104 samples related to the Spring Valley "Operation Safe Removal" were analyzed by the Research and Technology Directorate Analysis Team.

2. Of the nine munitions downloaded at the CTF, only # 90 contained an intact CW agent. It was identified and confirmed to contain a high concentration of intact mustard (H), at least 60% pure, in addition to numerous H hydrolysis and degradation products. Samples of two munitions, #67 and #113, contained water as the major component, and hydrolysis and degradation products of H as minor components. Samples of two munitions, #71 and #82, contained no organic compounds, no halogenated compounds, but consisted of fuming sulfuric acid. Samples of three other munitions, #65, #87, #142, were water solutions of inorganic salts, primarily the chlorides of magnesium, calcium and sodium. The sample from munition #147 appeared to contain only innocuous aliphatic and aromatic compounds.

3. Individual soil and debris samples from the site were given

identification numbers or descriptors, packed in numbered pigs, and transported to ERDEC. Samples from pig #1 contained compounds related to the vesicant Lewisite (L), including CVAA, CVAOA, L2 and L3. Samples from pig #2 contained the vomiting agent Adamsite (DM) and its precursor/degradation product diphenylamine. Sample 3 from pig #3 contained the lachrymator chloroacetophenone (CN) and its degradation products. Samples from pig #4 contained detectable quantities of TNT. Samples from pig #5 contained only background components. Sample #5 from Pig #6 contained low levels of CVAA. Sample #1 from pig #6 contained 40% acetophenone, 16% benzoic acid, 15% diphenylsulfide, and possible traces of CN. Pig #8 contained an item resembling a pressure reactor. The liquid inside identified and confirmed to be nitrobenzene. Minor components were identified as isomers of dinitro and trinitrobenzene.

4. Three of the four samples in the first pig #9 contained from trace levels to high concentrations of TNT. Sample #4 in the first pig #9 contained the L hydrolysate CVAA at low levels in addition to higher concentrations of triphenylarsine and diphenyl sulfide. Samples in the second pig #9 showed no evidence of any CW related or hazardous compounds. Three samples in the first pig #10 were identified and confirmed to contain the explosives TNT and tetryl in concentrations ranging from traces to a nearly neat mixture. Other samples in the first pig #10 contained low ppm levels of CVAA. No evidence of any CW related compounds was detected in the second pig #10. However three samples in the second pig #10 showed unusually high levels of metals.

5. No evidence of CW related compounds, explosives or other compounds of interest was found in pigs #11, #12, #13, #14, #15, #17, and #19.

6. Arsenic and arsenic (III) oxide were identified in one sample in pig #18. The other samples in pig #18 contained only background hydrocarbons. The pig #21 sample contained numerous compounds which are known to be H hydrolysis or degradation products. No intact H was detected. The detection of chloride ion indicated that the organic components detected were originally from the CW vesicant H and not from thioglycol (TDG).

7. One sample in pig #22 consisted of red phosphorus. Arsenic and arsenic (III) oxide were identified in another sample. A third sample from pig #22 contained L3 and several other possible L analogs or degradation products.

8. Degradation and condensation products of CN were the only compounds of interest detected in the samples in pig #23.

9. A formal ERDEC-SP report is being prepared for documentation and historical records.

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----- End of forwarded messages



REPLY TO
ATTENTION OF

AMSCB-CG

DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5423



23 June 1993

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Spring Valley Recognition and Compensation

1. Operation Safe Removal at Spring Valley (SV) was a success story in virtually every aspect. Credit for that success goes to each and every person who participated and supported, whether on-site or here at our home station. In acknowledging those contributions, my objectives were to see that every participant was acknowledged, that no one incurred personal expense, and that significant acts, efforts, and contributions were recognized. In addition to certificates for all who participated-supported, I intended to use authorized overtime pay and honorary and cash awards as means to achieve my objectives.
2. I learned many lessons during Spring Valley and one of those is that the process of recognition and compensation of people who participate in these type actions needs to be reviewed as a package in total. The process we used was that the honorary recognition, direct dollar and overtime compensation and performance awards were done as separate actions. In retrospect, I should have had the total package reviewed while in process before finalizing each piece. In reviewing the total package, I found it necessary to adjust some of the higher performance awards downward in consideration of the total recognition and compensation on an individual case- by-case basis.
3. Our CBDCOM value of integrity requires that all of us, myself included, act in a highly ethical manner. Prudent use of the Army and tax payers' resources required me to make a judgment to balance honorary and monetary compensation for SV. Leadership, our people value, requires me to do the right thing for the right reason and be willing to explain why. This is not always easy, as in this case. My actions are intended to bring total recognition into balance. Let me assure you that I appreciate your accomplishments in support of SV and am very proud of what we accomplished as a team both on-site and at home station. I regret any misunderstanding and hope that you will understand the basis for my action.

GEORGE E. FRIEL
Brigadier General, USA
Commanding

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(PAGE 2)

23 June 1993

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SUBJECT: Spring Valley Recognition and Compensation

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